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COLLEGE PARK, MARYLAND

CALENDAR FOR 1939-1940

1939	1940	1941
JULY S M T W T F S 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	JANUARY S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	JULY S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
AUGUST S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	FEBRUARY S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	AUGUST S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
SEPTEMBER S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MARCH S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	SEPTEMBER S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
OCTOBER S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	APRIL S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	OCTOBER S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
NOVEMBER S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	MAY S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	NOVEMBER S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
DECEMBER S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	JUNE S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	DECEMBER S M T W T F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

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existing at the time of publication, June, 1939.

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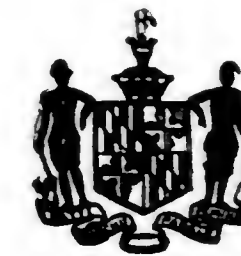
CALENDAR FOR 1939-1940

1939	1940		1941
JULY	JANUARY	JULY	JANUARY
S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S
1	1 2 3 4 5 6	1 2 3 4 5 6	1 2 3 4
2 3 4 5 6 7 8	7 8 9 10 11 12 13	7 8 9 10 11 12 13	5 6 7 8 9 10 11
9 10 11 12 13 14 15	14 15 16 17 18 19 20	14 15 16 17 18 19 20	12 13 14 15 16 17 18
16 17 18 19 20 21 22	21 22 23 24 25 26 27	21 22 23 24 25 26 27	19 20 21 22 23 24 25
23 24 25 26 27 28 29	28 29 30 31	28 29 30 31	26 27 28 29 30 31
30 31			
AUGUST	FEBRUARY	AUGUST	FEBRUARY
S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S
1 2 3 4 5	1 2 3	1 2 3	1
6 7 8 9 10 11 12	4 5 6 7 8 9 10	4 5 6 7 8 9 10	2 3 4 5 6 7 8
13 14 15 16 17 18 19	11 12 13 14 15 16 17	11 12 13 14 15 16 17	9 10 11 12 13 14 15
20 21 22 23 24 25 26	18 19 20 21 22 23 24	18 19 20 21 22 23 24	16 17 18 19 20 21 22
27 28 29 30 31	25 26 27 28 29	25 26 27 28 29 30 31	23 24 25 26 27 28
SEPTEMBER	MARCH	SEPTEMBER	MARCH
S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S
1 2	1 2	1 2 3 4 5 6 7	1
3 4 5 6 7 8 9	3 4 5 6 7 8 9	8 9 10 11 12 13 14	2 3 4 5 6 7 8
10 11 12 13 14 15 16	10 11 12 13 14 15 16	15 16 17 18 19 20 21	9 10 11 12 13 14 15
17 18 19 20 21 22 23	17 18 19 20 21 22 23	22 23 24 25 26 27 28	16 17 18 19 20 21 22
24 25 26 27 28 29 30	24 25 26 27 28 29 30	29 30	23 24 25 26 27 28 29
	31		30 31
OCTOBER	APRIL	OCTOBER	APRIL
S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S
1 2 3 4 5 6 7	1 2 3 4 5 6	1 2 3 4 5	1 2 3 4 5
8 9 10 11 12 13 14	7 8 9 10 11 12 13	6 7 8 9 10 11 12	6 7 8 9 10 11 12
15 16 17 18 19 20 21	14 15 16 17 18 19 20	13 14 15 16 17 18 19	13 14 15 16 17 18 19
22 23 24 25 26 27 28	21 22 23 24 25 26 27	20 21 22 23 24 25 26	20 21 22 23 24 25 26
29 30 31	28 29 30	27 28 29 30 31	27 28 29 30
NOVEMBER	MAY	NOVEMBER	MAY
S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S
1 2 3 4	1 2 3 4	1 2	1 2 3
5 6 7 8 9 10 11	5 6 7 8 9 10 11	3 4 5 6 7 8 9	4 5 6 7 8 9 10
12 13 14 15 16 17 18	12 13 14 15 16 17 18	10 11 12 13 14 15 16	11 12 13 14 15 16 17
19 20 21 22 23 24 25	19 20 21 22 23 24 25	17 18 19 20 21 22 23	18 19 20 21 22 23 24
26 27 28 29 30	26 27 28 29 30 31	24 25 26 27 28 29 30	25 26 27 28 29 30 31
DECEMBER	JUNE	DECEMBER	JUNE
S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S
1 2	1	1 2 3 4 5 6 7	1 2 3 4 5 6 7
3 4 5 6 7 8 9	2 3 4 5 6 7 8	8 9 10 11 12 13 14	8 9 10 11 12 13 14
10 11 12 13 14 15 16	9 10 11 12 13 14 15	15 16 17 18 19 20 21	15 16 17 18 19 20 21
17 18 19 20 21 22 23	16 17 18 19 20 21 22	22 23 24 25 26 27 28	22 23 24 25 26 27 28
24 25 26 27 28 29 30	23 24 25 26 27 28 29	29 30 31	29 30
31	30		

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UNIVERSITY CALENDAR

1939-1940

COLLEGE PARK

First Semester

1940

1939

18-21	Sept. 13-14 Sept. 15-16	Wednesday-Thursday Friday-Saturday	Registration of new students. Registration of returning students.
23	Sept. 18	Monday, 8:20 a. m.	Instruction for first semester begins.
28	Sept. 23	Saturday	Last day to change registration or to file schedule card without penalty.
12	Oct. 28	Saturday	Homecoming Day.
14	Nov. 9	Thursday	Annual Faculty Reception.
20	Nov. 29	Wednesday, 5:10 p. m.	Thanksgiving recess begins.
25	Dec. 4	Monday, 8:20 a. m.	Thanksgiving recess ends
14	Dec. 15	Friday, 5:10 p.m.	Christmas recess begins.

1941

1940

2	Jan. 2	Tuesday, 8:20 a. m.	Christmas recess ends.
22-30	Jan. 17-25	Wednesday-Thursday	First semester examinations.
20	Jan. 20	Saturday	Charter Day. Alumni and Faculty Banquet.

Second Semester

Feb 3-5	Jan. 29-31	Monday-Wednesday	Registration for the second semester.
6	Feb. 1	Thursday, 8:20 a. m.	Instruction for second semester begins.
12	Feb. 8	Wednesday	Last day to change registration or to file schedule card without penalty.
26	Feb. 22	Thursday	Washington's Birthday. Holiday.
25	March 25	Monday	Maryland Day.
Apr 10-16	March 21-26	Thursday, 5:10 p. m. Tuesday, 8:20 a. m.	Easter Recess.
May 26-June 4	May 21-29	Tuesday-Wednesday	Second semester examinations.
June 1	May 26	Sunday, 11:00 a. m.	Baccalaureate sermon.
	May 30	Thursday	Memorial Day. Holiday.
6	May 31	Friday	Class Day.
7	June 1	Saturday	Commencement.

Notice: No leaves of absence will be granted either prior to, or subsequent to the dates set for holidays.

Summer Session

June 24	Monday	Summer Session Begins.
Aug. 2	Friday	Summer Session ends.

Short Courses and Conferences, 1939-40

December 14-15	Canning Crops Conference.
January	Greenkeepers' School.
January 29-February 2	Highway Engineering short course.
February	Nurserymen's short course.
March	Florists' short course.
April	Garden School.
June 17-22 16-21	Rural Women's short course.
July	Conference of Educational Advisers of C. C. C.
August 5-10 11-16	Boys' and Girls' Club Week.
August 19-31	Traffic Officers' Training School.
August	Conference of Fertilizer Salesmen.
August	Conference of Tree Wardens.
September 3-5	Volunteer Firemen's short course.
September 9-11	Sanitary Engineering short course.
September	Poultry Products Marketing School.
September	Poultry Breeding and Improvement School.

BALTIMORE (PROFESSIONAL SCHOOLS)

First Semester

1939		
September 11	Monday	*Registration for evening students (LAW).
September 13	Wednesday	Instruction begins with the first scheduled period (LAW—Evening).
September 19	Tuesday	*Registration for first- and second-year students (DENTISTRY, MEDICINE, PHARMACY).
September 20	Wednesday	*Registration for all other students (DENTISTRY, LAW—Day, MEDICINE, PHARMACY).
September 21	Thursday	Instruction begins with the first scheduled period (DENTISTRY, LAW—Day, MEDICINE, PHARMACY).
November 29	Wednesday	Thanksgiving recess begins after the last scheduled period (ALL SCHOOLS).

December 4	Monday	Instruction resumed with the first scheduled period (ALL SCHOOLS).
December 20	Wednesday	Christmas recess begins after the last scheduled period (ALL SCHOOLS).
1940		
January 3	Wednesday	Instruction resumed with the first scheduled period (ALL SCHOOLS).
January 22 to January 27, inc.	Monday-Saturday	*Registration for the second semester (ALL SCHOOLS).
January 27	Saturday	First semester ends after the last scheduled period (ALL SCHOOLS).
Second Semester		
January 29	Monday	Instruction begins with the first scheduled period (ALL SCHOOLS).
February 22	Thursday	Washington's Birthday. Holiday.
March 20	Wednesday	Easter recess begins after the last scheduled period (ALL SCHOOLS).
March 27	Wednesday	Instruction resumed with the first scheduled period (ALL SCHOOLS).
June 1	Saturday, 11 a.m.	Commencement.
June 12	Wednesday	Second semester ends (LAW — Evening).

*A student who neglects or fails to register prior to or within the day or days specified for his or her school will be called upon to pay a late registration fee of five dollars (\$5.00). The last day of registration with fee added to regular charges is Saturday at noon of the week in which instruction begins following the specified registration period. (This rule may be waived only upon the written recommendation of the dean.)

*The offices of the registrar and comptroller are open daily, not including Saturday, from 9.00 a. m. to 5.00 p. m., and on Saturday from 9.00 a. m. to 12.30 p. m., with the following exceptions: Monday, September 11, 1939, until 8.00 p. m.; Saturday, September 23, 1939, until 5.00 p. m.; and on Saturday, January 27, 1940, until 5.00 p. m. Advance registration is encouraged.

BOARD OF REGENTS

	Term Expires
W. W. SKINNER, Chairman..... Kensington, Montgomery County	1945
MRS. JOHN L. WHITEHURST, Secretary..... 4101 Greenway, Baltimore	1947
J. MILTON PATTERSON, Treasurer..... 1015 Argonne Drive, Baltimore	1944
**ROWLAND K. ADAMS <i>Judge - Balto. Supreme</i> 1808 Fairbank Rd., Baltimore	1948
W. CALVIN CHESNUT..... Roland Park, Baltimore	1942
WILLIAM P. COLE, JR..... Towson, Baltimore County	1940-
HENRY HOLZAPFEL, JR..... Hagerstown, Washington County	1943
HARRY H. NUTTLE..... Denton, Caroline County	1941
*JOHN E. RAINE..... Towson, Baltimore County	1939
JOHN E. SEMMES..... 100 W. University Parkway, Baltimore	1942

*Term expires first Monday in June.

**Term begins first Monday in June.

*expired
July, 1939*

OFFICERS OF ADMINISTRATION

H. C. BYRD, LL.D., D.Sc., President of the University.
H. J. PATTERSON, D. Sc., Dean Emeritus of Agriculture.
T. B. SYMONS, M.S., D.Agr., Director of the Extension Service, Acting Dean of the College of Agriculture.
T. H. TALIAFERRO, C. E., Ph.D., Dean of the Faculty.
HENRY D. HARLAN, A.M., LL.B., LL.D., Dean Emeritus of the School of Law.
E. FRANK KELLY, Phar.D., D.Sc., Advisory Dean of the School of Pharmacy.
J. BEN ROBINSON, D.D.S., F.A.C.D., Dean of the School of Dentistry.
ROGER HOWELL, LL.B., Ph.D., Dean of the School of Law.
J. M. H. ROWLAND, Sc.D., LL.D., M.D., Dean of the School of Medicine.
ANNIE CRIGHTON, R.N., Superintendent of Nurses, Director of the School of Nursing.
ANDREW G. DUMÉZ, Ph.G., Ph.D., Dean of the School of Pharmacy.
A. J. LOMAS, M.D., D.P.H., Superintendent of the University Hospital.
C. O. APPLEMAN, Ph.D., Dean of the Graduate School.
H. F. COTTERMAN, Ph.D., Assistant Dean of the College of Agriculture.
L. B. BROUGHTON, Ph.D., Dean of the College of Arts and Sciences.
W. MACKENZIE STEVENS, N.B.A., Ph.D., C.P.A., Dean of the College of Commerce.
W. S. SMALL, Ph.D., Dean of the College of Education, Director of the Summer Session.
S. S. STEINBERG, B.E., C.E., Dean of the College of Engineering.
M. MARIE MOUNT, A.B., M.A., Dean of the College of Home Economics.
J. E. METZGER, B.S., M.A., Acting Director of Experiment Station.
J. D. PATCH,* Lt.Col., Inf., U. S. Army, Professor of Military Science and Tactics.
THOMAS D. FINLEY,† Lt.Col., Inf., U. S. Army, Professor of Military Science and Tactics.
GEARY F. EPPLEY, M.S., Dean of Men and Director of Athletics.
ADELE H. STAMP, M.A., Dean of Women.
H. T. CASBARIAN, B.C.S., C.P.A., Comptroller.
W. M. HILLEGEIST, Director of Admissions.
ALMA H. PREINKERT, M.A., Registrar.
F. K. HASZARD, B.S., Secretary to the President.
CARL W. E. HINTZ, A.M.L.S., Librarian.
H. L. CRISP, M.M.E., Superintendent of Buildings and Grounds.
T. A. HUTTON, Purchasing Agent.

*Relieved as of July 15, 1939.

†Assigned as of July 1, 1939.

OFFICERS OF INSTRUCTION

For the Year 1938-1939

At College Park

PROFESSORS

CHARLES ORVILLE APPLEMAN, Ph.D., Professor of Botany and Plant Physiology, Dean of the Graduate School.
HAYES BAKER-CROTHERS, Ph.D., Professor of History.
FRED WILSON BESLEY, Ph.D., Professor of Farm Forestry, State Forester.
LUTHER ALLEN BLACK, Ph.D., Professor of Bacteriology.
LEVIN BOWLAND BROUGHTON, Ph.D., Dean of the College of Arts and Sciences, Professor of Chemistry, State Chemist.
GLEN DAVID BROWN, M.A., Professor of Industrial Education.
THEODORE CARROLL BYERLY, Ph.D., Professor of Poultry Husbandry.
RAY WILFORD CARPENTER, A.B., LL.B., Professor of Agricultural Engineering, State Drainage Engineer.
ERNEST NEAL CORY, Ph.D., Professor of Entomology, State Entomologist.
HAROLD F. COTTERMAN, Ph.D., Professor of Agricultural Education, Assistant Dean of the College of Agriculture, State Supervisor of Vocational Agriculture.
MYRON CREESE, B.S., E.E., Professor of Electrical Engineering.
TOBIAS DANTZIG, Ph.D., Professor of Mathematics.
SAMUEL HENRY DEVAULT, Ph.D., Professor of Agricultural Economics.
NATHAN LINCOLN DRAKE, Ph.D., Professor of Organic Chemistry.
ALICE GWENDOLYN DREW, M.A., Professor of Physical Education for Women.
CHARLES GARFIELD EICHLIN, A.B., M.S., Professor of Physics.
CHARLES WALTER ENGLAND, Ph.D., Professor of Dairy Manufacturing.
WILLIAM FRANKLIN FALLS, Ph.D., Professor of Modern Languages.
THOMAS DEWEESE FINLEY,* Lieutenant Colonel, Inf., U.S.A., Professor of Military Science and Tactics.
ALLEN GARFIELD GRUCHY, Ph.D., Professor of Finance and Economics.
CHARLES BROCKWAY HALE, Ph.D., Professor of English.
MALCOLM MORRISON HARING, Ph.D., Professor of Physical Chemistry.
LAWRENCE VAUGHAN HOWARD, Ph.D., Professor of Political Science.
WILBERT JAMES HUFF, Ph.D., Professor of Chemical Engineering.
KENNETH COLE IKELER, M.E., M.S., Professor of Animal and Dairy Husbandry.
LAWRENCE HENRY JAMES, Ph.D., Professor of Bacteriology.
JOHN GAMEWELL JENKINS, Ph.D., Professor of Psychology.
MORLEY ALLAN JULL, Ph.D., Professor of Poultry Husbandry.
WILLIAM BECK KEMP, Ph.D., Professor of Genetics and Statistics.
FREDERICK HAROLD LEINBACH, M.S., Professor of Animal Husbandry.
EDGAR FAUVER LONG, Ph.D., Professor of Education.
CHARLES LEROY MACKERT, M.A., Professor of Physical Education for Men.
CHARLES HAROLD MAHONEY, Ph.D., Professor of Olericulture.

*Assigned as of July 1, 1939.

FRITZ MARTI, Ph.D., Professor of Philosophy.

✓ FRIEDA WIEGAND MCFARLAND, M.A., Professor of Textiles and Clothing.

✓ EDNA BELLE MCNAUGHTON, M.A., Professor of Home Economics Education.

DEVOE MEADE, Ph.D., Professor of Animal and Dairy Husbandry.

JACOB EBRY METZGER, B.S., M.A., Professor of Agronomy and Acting Director of Experiment Station.

JOSHUA ALBERT MILLER, B.S., Administrative Coordinator of Practice Teaching.

MYRL MARIE MOUNT, M.A., Professor of Home and Institution Management, Dean of the College of Home Economics.

JOHN BITTING SMITH NORTON, M.S., D.Sc., Professor of Botany.

JOSEPH DORST PATCH,* Lieutenant Colonel, Inf., U. S. A., Professor of Military Science and Tactics.

J. ORIN POWERS, Ph.D., Professor of Education.

CHARLES SAMUEL RICHARDSON, A.M., Professor of Speech.

ALBERT LEE SCHRADER, Ph.D., Professor of Pomology.

WILLARD STANTON SMALL, Ph.D., Professor of Education, Dean of the College of Education, Director of the Summer Session.

JESSE WILLIAM SPROWLS, Ph.D., Professor of Psychology.

✓ ADELE HAGNER STAMP, M.A., Dean of Women.

SAMUEL SIDNEY STEINBERG, B.E., C.E., Professor of Civil Engineering, Dean of the College of Engineering, Director of Engineering Research.

WAYNE MACKENZIE STEVENS, M.B.A., Ph.D., C.P.A., Professor of Economics and Business Administration, Dean of the College of Commerce.

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THOMAS HARDY TALIAFERRO, C.E., Ph.D., Professor of Mathematics, Dean of Faculty.

CHARLES EDWARD TEMPLE, M.A., Professor of Plant Pathology, State Plant Pathologist.

ROYLE PRICE THOMAS, Ph.D., Professor of Soil Technology.

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REGINALD VAN TRUMP TRUITT, Ph.D., Professor of Zoology and Aquiculture.

KENNETH LEROY TURK, Ph.D., Professor of Dairy Husbandry.

EDGAR PERKINS WALLS, Ph.D., Professor of Canning Crops.

HARRY REDCAY WARFEL, Ph.D., Professor of English.

SIVERT MATTHEW WEDEBERG, A.M., C.P.A., Professor of Accounting.

✓ CLARIBEL PRATT WELSH, M.A., Professor of Foods.

CHARLES EDWARD WHITE, Ph.D., Professor of Inorganic Chemistry.

JOHN ELLIOTT YOUNGER, Ph.D., Professor of Mechanical Engineering.

ADOLF EDWARD ZUCKER, Ph.D., Professor of Modern Languages.

LECTURERS

O. E. BAKER, Ph.D., Lecturer on Agricultural Economics.

RICHARD S. DILL, B.S., Lecturer on Heating, Ventilation, and Refrigeration.

*Relieved as of July 15, 1939.

HARRY RUTLEDGE HALL, B.S., Lecturer on Municipal Sanitation.

FRANK L. HESS, B.A., Lecturer on Geology.

FRANK GREGG KEAR, D.Sc., Lecturer on Electrical Communications.

RICHARD LAWRENCE MERRICK, LL.B., Lecturer on Business Law.

ROBERT EVANS SNODGRASS, A.B., Lecturer on Entomology.

JAMES FRANKLIN YEAGER, Ph.D., Lecturer on Entomology.

ASSOCIATE PROFESSORS

RONALD BAMFORD, Ph.D., Associate Professor of Botany.

MYRON HERBERT BERRY, M.A., Associate Professor of Dairy Husbandry.

HERBERT RODERICK BIRD, Ph.D., Associate Professor of Poultry Nutrition.

HENRY BRECHBILL, Ph.D., Associate Professor of Education.

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JAMES MARTIN GWIN, B.S., Associate Professor of Poultry Production and Marketing.

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CHARLES FREDERICK KRAMER, JR., M.A., Associate Professor of Modern Languages.

FRANCIS BUSY LINCOLN, Ph.D., Associate Professor of Plant Propagation.

ALPHEUS ROYALL MARSHALL, Ph.D., Associate Professor of Economics.

MONROE HARNISH MARTIN, Ph.D., Associate Professor of Mathematics.

NORMAN ETHELBERT PHILLIPS, Ph.D., Associate Professor of Zoology.

GEORGE DEWITTE QUIGLEY, B.S., Associate Professor of Poultry Husbandry.

ALLIE W. RICHESON, Ph.D., Associate Professor of Mathematics (Baltimore).

MARK MERCER SHOEMAKER, A.B., M.L.D., Associate Professor of Landscape Gardening.

REUBEN GEORGE STEINMEYER, Ph.D., Associate Professor of Political Science.

WILLIAM PAUL WALKER, M.S., Associate Professor of Agricultural Economics.

RAYMOND CLIFFORD WILEY, Ph.D., Associate Professor of Analytical Chemistry.

ROBERT CARL YATES, Ph.D., Associate Professor of Mathematics.

ASSISTANT PROFESSORS

- RUSSELL BENNETT ALLEN, B.S., Assistant Professor of Civil Engineering.
 ROGER MARION BELLWS, Ph.D., Assistant Professor of Psychology.
 RUSSELL GUY BROWN, Ph.D., Assistant Professor of Plant Physiology.
 SUMNER OTHNIEL BURHOE, Ph.D., Assistant Professor of Zoology.
 CORNELIUS WILBUR CISSEL, M.A., Assistant Professor of Accounting.
 WESTON ROBINSON CLARK, M.A., Assistant Professor of Psychology.
 HARRY GOODWIN CLOWES, M.S., Assistant Professor of Sociology.
 JAMES WILLIAM CODDINGTON, M.S., Assistant Professor of Agricultural Economics.
 ✓ VIENNA CURTISS, M.A., Assistant Professor of Art.
 EUGENE B. DANIELS, M.A., M.F.S., Ph.D., Assistant Professor of Economics and Commerce.
 GEORGE ODELL SWITZER DARBY, Ph.D., Assistant Professor of Modern Languages.
 LINDEN SEYMOUR DODSON, Ph.D., Assistant Professor of Sociology.
 HERMAN GERARD DUBUY, Ph.D., Assistant Professor of Plant Physiology.
 RAY EHRENSBERGER, Ph.D., Assistant Professor of Speech.
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MYLO SNAVELY DOWNEY, B.S., Assistant Extension Boys' Club Work.

CASTILLO GRAHAM, M.S., Assistant Professor Extension Entomology.
 JAMES MARTIN GWIN, B.S., Associate Professor Extension Egg Marketing.
 W. EDGAR HARRISON, Assistant Extension Marketing.
 JESSIE DELCINA HINTON, M.S., Associate Professor Extension Home Management.
 HERMAN AULL HUNTER, M.S., Associate Professor Extension Canning Technology.
 KENNETH COLE IKELER, M.E., M.S.A., Professor, and Chairman Animal Industry Group.
 JAMES RUSSELL IVES, M.S., Instructor Extension Agricultural Economics.
 ROBERT ANDREW JEHLE, Ph.D., Associate Professor Extension Plant Pathology.
 MORLEY ALLAN JULL, Ph.D., Professor, and Chairman Poultry Husbandry.
 ALBERT VICTOR KREWATCH, M.S., E.E., Associate Professor Extension Rural Electrification.
 GEORGE SHEALY LANGFORD, Ph.D., Associate Professor Extension Entomology.
 JOHN WINFIELD MAGRUDER, B.S., Associate Professor Extension Agronomy.
 MARGARET MCPHEETERS, M.S., Associate Professor Extension Nutrition.
 DEVOE MEADE, Ph.D., Professor Extension Dairy and Animal Husbandry.
 JAMES BURTON OUTHOUSE, B.S., Instructor Extension Animal Husbandry.
 WALTER BENJAMIN POSEY, B.S., Associate Professor Extension Tobacco.
 HARLAN RANDALL, Assistant Professor Extension Music.
 WADE HAMPTON RICE, B.S., Associate Professor Extension Poultry Husbandry.
 CHARLES S. RICHARDSON, A.M., Professor Extension Speech.
 STEWART BAKER SHAW, B.S., Professor Extension Marketing, and Chief State Department of Markets.
 HELEN SHELBY, M.A., Associate Professor Extension Clothing.
 MARK MERCER SHOEMAKER, A.B., M.L.D., Associate Professor Extension Landscape Gardening.
 CARL B. SMITH, M.S., Instructor Extension Agricultural Economics.
 CHARLES EDWARD TEMPLE, M.A., Professor Extension Plant Pathology, and State Pathologist.
 HOWARD JOHN TWILLEY, B.S., Assistant Extension Marketing.
 JOSEPH MCNAUGHTON VIAL, B.S., Professor Extension Animal Husbandry.
 ALBERT FRANK VIERHELLER, M.S., Associate Professor Extension Horticulture.
 EARNEST ARTMAN WALKER, M.S., Assistant Extension Plant Pathology.
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 FORREST BROOKES WHITTINGTON, M.S., Instructor Extension Entomology.
 CHARLES SIMPSON WILLIAMS, B.S., Instructor Extension Poultry Husbandry.
 CALLENDER FAYSSOUX WINSLOW, A.B., M.F., Assistant Professor Extension Forestry.
 LELAND GRIFFITH WORTHINGTON, B.S., Assistant Extension General Education.

COUNTY AGENTS

(Field)

County	Name	Headquarters
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Anne Arundel.....	STANLEY EVERETT DAY, B.S., Assistant Professor,	Annapolis
Baltimore.....	HORACE BENNETT DERRICK, B.S., Associate Professor,	Towson
Calvert.....	JOHN BOOME MORSELL, B.S., Assistant Professor,	Prince Frederick
Caroline.....	GEORGE WATSON CLENDANIEL, B.S., Associate Professor,	Denton
Carroll.....	LANDON CRAWFORD BURNS, B.S., Associate Professor,	Westminster
Cecil.....	JAMES ZENUS MILLER, B.S., Assistant Professor.....	Elkton
Charles.....	PAUL DENNIS BROWN, B.S., Associate Professor.....	La Plata
Dorchester.....	WILLIAM RUSSELL MCKNIGHT, B.S., Associate Professor,	Cambridge
Frederick.....	HENRY REESE SHOEMAKER, B.S., M.A., Associate Professor,	Frederick
Garrett.....	JOHN HURLEY CARTER, B.S., Assistant Professor.....	Oakland
Harford.....	HENRY MORRISON CARROLL, B.S., Associate Professor,	Bel Air
Howard.....	WARREN GRAHAM MYERS, B.S., Assistant Professor,	Ellicott City
Kent.....	JAMES DUNHAM McVEAN, B.S., Associate Professor,	Chestertown
Montgomery.....	OTTO WATSON ANDERSON, M.S., Associate Professor,	Rockville
Prince Georges.....	PERCY ELLSWORTH CLARK, B.S., Assistant Professor,	Upper Marlboro
Queen Annes.....	KENNETH WORTHINGTON BAKER, B.S., Assistant Professor,	Centerville
St. Marys.....	JOSEPH JULIUS JOHNSON, Assistant Professor,	Leonardtown
Somerset.....	.....	Princess Anne
Talbot.....	RUDOLPH STOCKSDALE BROWN, B.S., Assistant Professor,	Easton
Washington.....	MILTON DONALDSON MOORE, M.S., Associate Professor,	Hagerstown
Wicomico.....	JAMES PAUL BROWN, B.S., Assistant Professor.....	Salisbury
Worcester.....	ROBERT THORNTON GRANT, B.S., Associate Professor,	Snow Hill

Assistant County Agents

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 Baltimore.....JOHN WHEELER ENSOR, B.S., Instructor.....Towson
 Harford.....WALTER SHERARD WILSON, B.S., Instructor.....Bel Air
 Kent.....STANLEY BURR SUTTON, Instructor.....Chestertown
 Montgomery.....RUFUS BACHER KING, A.B., Instructor.....Rockville
 Carroll,
 Frederick,
 and Howard.....CHARLES HARMON REMSBERG, B.S., Instructor.....Frederick
 Caroline,
 Dorcheser
 and Talbot.....CHARLES FULLER, Instructor.....Easton
 Queen Anne's.....MARK KERMIT MILLER, B.S., Instructor.....Centerville

Local Agents—Negro Work

Southern
 Maryland.....Seat Pleasant
 Eastern Shore.....LOUIS HENDERSON MARTIN, Instructor.....Princess Anne

COUNTY HOME DEMONSTRATION AGENTS (Field)

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Baltimore.....	ANNA TRENTAM, B.S., Associate Professor.....	Towson
Calvert.....	ANGELA MAE FEISER, B.S., Assistant Professor,	Prince Frederick
Caroline.....	BESSIE MARGUERITE SPAFFORD, B.S., Associate Professor,	Denton
Carroll.....	ADELINE MILDRED HOFFMAN, M.A., Assistant Professor,	Westminster
Cecil.....	HELEN IRENE SMITH, B.A., Assistant Professor.....	Elkton
Charles.....	MARY GRAHAM, Assistant Professor.....	La Plata
Dorchester.....	HATTIE ESTELLA BROOKS, A.B., Associate Professor,	Cambridge
Frederick.....	FLORENCE ELIZABETH WILLIAMS, B.S., Assistant Professor,	Frederick
Garrett.....	MILDRED EVA BARTON, B.S., Assistant Professor.....	Oakland
Harford.....	CATHARINE MAURICE, B.S., Associate Professor.....	Bel Air
Howard.....	KATHRYN ELIZABETH NEWTON, M.S., Assistant Professor,	Ellicott City
Kent.....	HELEN NICKERSON SCHELLINGER, Associate Professor,	Chestertown
Montgomery.....	EDYTHE MARGARET TURNER, Associate Professor.....	Rockville

Prince Georges.....ETHEL MARY REGAN, Associate Professor.....Hyattsville
 Queen Annes.....RUBY LEE KIRK, B.A., Assistant Professor.....Centerville
 St. Marys.....ETHEL JOY, A.B., Assistant Professor.....Leonardtown
 Somerset.....HILDA TOPFER, B.S., Assistant Professor.....Princess Anne
 Talbot.....MARGARET SMITH, B.S., Associate Professor.....Easton
 Washington.....ARDATH ELLEN MARTIN, B.S., Assistant Professor,
 Hagerstown
 Wicomico.....JUDITH AULT, B.S., Assistant Professor.....Salisbury
 Worcester.....LUCY JANE WALTER, Associate Professor.....Snow Hill

Assistant County Home Demonstration Agents

Allegany.....MARGARET THOMSON LOAR, Instructor.....Cumberland
 Baltimore and Harford.....ELIZABETH ROZELLE JOHNSON, B.S., Instructor.....Towson

Local Home Demonstration Agents (Colored)

Charles,
 St. Mary's,
 Prince George's
 & Montgomery.....MRS. ARMINA JOHNS DIXON, Instructor,
 106 Rhode Island Ave., Brentwood
 Somerset.....MRS. JUSTINE NAHALA CLARK, Instructor.....Princess Anne

Assistant Local Home Demonstration Agent (Colored)

Charles,
 St. Mary's,
 Prince George's
 & Montgomery.....DOROTHY RUTH RANSOM, B.S., Instructor,
 106 Rhode Island Ave., Brentwood

**LIVE STOCK SANITARY SERVICE AND DEPARTMENT
OF VETERINARY SCIENCE**

(College Park)

MARK WELSH, D.V.M., M.S., Professor of Veterinary Science and State Veterinarian.

JAMES W. HUGHES, D.V.M., LL.B., Associate Professor of Veterinary Science and Associate State Veterinarian.

ARTHUR LOUIS BRUECKNER, B.S., V.M.D., Professor of Animal Pathology, in Charge of College Park Laboratory.

LEO JOSEPH POELMA, D.V.M., M.S., Associate Professor of Animal Pathology.

WILLIAM RUSH CRAWFORD, D.V.M., Associate Professor of Veterinary Science.

HAROLD MOON DEVOLT, D.V.M., M.S., Associate Professor of Animal Pathology.

CLYDE LORAYNE EVERSON, D.V.M., Assistant Professor of Veterinary Science, in Charge of Baltimore Laboratory.

CHARLES ROBERT DAVIS, D.V.M., M.S., Assistant Professor of Veterinary Science.

IRVIN M. MOULTHROP, D.V.M., Assistant Professor of Veterinary Science, in Charge of Salisbury Laboratory.

GEORGE EDWIN DANIEL, B.S., Ph.D., Assistant Professor of Veterinary Parasitology.

CHARLES HENRY CUNNINGHAM, Assistant Professor of Veterinary Science, in Charge of Centreville Laboratory.

MELVIN MOSES RABSTEIN, V.M.D., Assistant Professor of Veterinary Science, and U. S. Cooperative Agent.

JAMES W. CROWL, D.V.M., Assistant Professor and Veterinary Inspector, Centreville.

H. B. WOOD, D.V.M., Assistant Professor and Veterinary Inspector, Hagerstown.

CLARENCE J. GIBBS, D.V.M., Assistant Professor and Veterinary Inspector, Upper Marlboro.

J. WALTER HASTINGS, D.V.M., Assistant Professor and Veterinary Inspector, Cambridge.

J. J. JONES, D.V.M., Assistant Professor and Veterinary Inspector, LaPlata.

CHAS. R. LOCKWOOD, D.V.M., Assistant Professor and Veterinary Inspector, Towson.

MAHLON H. TROUT, D.V.M., Assistant Professor and Veterinary Inspector, Salisbury.

THEO. SCHONDAK, D.V.M., Assistant Professor and Veterinary Inspector, Union Stock Yards.

H. L. ARMSTRONG, D.V.M., Assistant Professor and Veterinary Inspector, Bel Air.

F. H. BENJAMIN, D.V.M., Assistant Professor and Veterinary Inspector, North East.

CHAS. B. BREININGER, D.V.M., Assistant Professor and Veterinary Inspector, Easton.

WALTER J. CROSS, D.V.M., Assistant Professor and Veterinary Inspector, Laurel.

ORA K. HOFFMAN, D.V.M., Assistant Professor and Veterinary Inspector, Hagerstown.

OWEN L. LOCKWOOD, D.V.M., Assistant Professor and Veterinary Inspector, Baltimore.

ED. J. McLAUGHLIN, D.V.M., Assistant Professor and Veterinary Inspector, Salisbury.

CHAS. A. TURNER, D.V.M., Assistant Professor and Veterinary Inspector, Chestertown.

CHAS. B. WEAGLEY, D.V.M., Assistant Professor and Veterinary Inspector, Middletown.

CHAS. OMER, D.V.M., Assistant Professor and Veterinary Inspector, Westminster.

LOUISE SKLAR, D.V.M., M.S., Graduate Assistant, College Park.

OFFICERS OF INSTRUCTION

For the Year 1938-39

At Baltimore

PROFESSORS

WILLIAM R. AMBERSON, Ph.D., Professor of Physiology.
 GEORGE M. ANDERSON, D.D.S., F.A.C.D., Professor of Comparative Dental Anatomy and Orthodontia.
 CHARLES BAGLEY, JR., M.A., M.D., Professor of Neurological Surgery.
 ROBERT P. BAY, M.D., F.A.C.S., Professor of Anatomy and Oral Surgery (Dentistry); Professor of Oral Surgery (Medicine).
 HARVEY G. BECK, M.D., Sc.D., Professor of Clinical Medicine.
 CHARLES F. BLAKE, A.M., M.D., Professor of Diseases of the Rectum and Colon.
 CLIFFORD W. CHAPMAN, M.S., Ph.D., Emerson Professor of Pharmacology.
 ROSS MCC. CHAPMAN, M.D., Professor of Psychiatry.
 CLYDE A. CLAPP, M.D., Professor of Ophthalmology.
 ALBERTUS COTTON, A.M., M.D., Professor of Orthopaedic Surgery and Roentgenology.
 ANNIE CRIGHTON, R.N., Superintendent of Nurses, Director of the School of Nursing.
 J. FRANK CROUCH, M.D., Professor Emeritus of Clinical Ophthalmology and Otology.
 DAVID M. R. CULBRETH, Ph.G., M.D., Professor Emeritus of Botany and Materia Medica.
 CARL L. DAVIS, M.D., Professor of Anatomy.
 S. GRIFFITH DAVIS, M.S., M.D., Professor of Anesthesia.
 BRICE M. DORSEY, D.D.S., Professor of Anesthesia and Exodontia (Dentistry); Professor of Exodontia (Medicine).
 L. H. DOUGLASS, M.D., Professor of Obstetrics.
 J. W. DOWNEY, M.D., Professor of Otology.
 ANDREW G. DUMÉZ, Ph.G., Ph.D., Professor of Pharmacy, Dean of the School of Pharmacy.
 PAGE EDMUNDS, M.D., Professor of Traumatic Surgery.
 CHARLES REID EDWARDS, M.D., Professor of Clinical Surgery.
 H. K. FLECK, M.D., Clinical Professor of Ophthalmology.
 EDGAR B. FRIEDENWALD, M.D., Professor of Clinical Pediatrics.
 HARRY FRIEDENWALD, A.B., M.D., D.H.L., D.Sc., Professor Emeritus of Ophthalmology.
 JULIUS FRIEDENWALD, A.M., M.D., Professor Emeritus of Gastro-Enterology.
 WILLIAM S. GARDNER, M.D., Professor Emeritus of Gynecology.
 OREN H. GAVER, D.D.S., F.A.C.D., Professor of Physiology and Physiological Chemistry.
 JOSEPH E. GICHNER, M.D., Professor of Clinical Medicine and Physical Therapeutics.

ANDREW C. GILLIS, A.M., M.D., LL.D., Professor of Neurology.
 A. J. GILLIS, M.D., Clinical Professor of Genito-Urinary Surgery.
 FRANK W. HACHTEL, M.D., Professor of Bacteriology.
 HON. HENRY D. HARLAN, A.M., LL.B., LL.D., Dean Emeritus of the School of Law.
 WALTER H. HARTUNG, Ph.D., Professor of Pharmaceutical Chemistry.
 ROGER HOWELL, Ph.D., LL.B., Professor of Law, Dean of the School of Law.
 J. MASON HUNDLEY, JR., M.A., M.D., Professor of Gynecology.
 ELLIOTT H. HUTCHINS, A.M., M.D., Professor of Clinical Surgery.
 BURT B. IDE, D.D.S., F.A.C.D., Professor of Operative Dentistry.
 F. L. JENNINGS, M.D., Professor of Clinical Surgery.
 C. LORING JOSLIN, M.D., Professor of Pediatrics.
 M. RANDOLPH KAHN, M.D., Clinical Professor of Ophthalmology.
 E. FRANK KELLY, Ph.D., D.S.C., Professor Emeritus of Chemistry (Dentistry); Advisory Dean of the School of Pharmacy.
 JOHN C. KRANTZ, JR., Ph.D., Professor of Pharmacology.
 T. FREDERICK LEITZ, M.D., Clinical Professor of Gastro-Enterology.
 G. CARROLL LOCKHARD, M.D., Professor of Clinical Medicine.
~~A. J. LEMAS, M.D., C.M., D.P.H., Superintendent of the University Hospital.~~
 EDWARD A. LOOPER, M.D., D.Oph., Professor of Diseases of the Nose and Throat.
 ALEXIUS MCGLANNAN, A.M., M.D., LL.D., Professor Emeritus of Surgery.
 ROBERT L. MITCHELL, Ph.D., M.D., Professor of Bacteriology and Pathology.
 THEODORE H. MORRISON, M.D., Clinical Professor of Gastro-Enterology.
 ALEXANDER H. PATERSON, D.D.S., F.A.C.D., Professor of Crown and Bridge, and Prosthetic Dentistry.
 MAURICE C. PINCOFFS, B.S., M.D., Professor of Medicine.
 J. DAWSON REEDER, M.D., Professor of Diseases of the Rectum and Colon.
 G. KENNETH REIBLICH, Ph.D., J.D., LL.M., Professor of Law.
 COMPTON RIELY, M.D., Clinical Professor of Orthopaedic Surgery.
 HARRY M. ROBINSON, M.D., Professor of Dermatology.
 J. BEN ROBINSON, D.D.S., F.A.C.D., Professor of Dental Anatomy and Operative Technics, Dean of the School of Dentistry.
 J. M. H. ROWLAND, M.D., Sc.D., LL.D., Dean of the School of Medicine.
 EDWIN G. W. RUGE, B.A., LL.B., Professor of Law.
 ABRAM S. SAMUELS, A.B., M.D., Clinical Professor of Gynecology.
 ARTHUR M. SHIPLEY, M.D., Sc.D., Professor of Surgery.
 W. S. SMITH, M.D., Clinical Professor of Gynecology.
 IRVING J. SPEAR, M.D., Professor of Neurology.
 HUGH R. SPENCER, M.D., Professor of Pathology.
 HARRY M. STEIN, M.D., Professor of Clinical Medicine.
 JOHN S. STRAHORN, JR., A.B., LL.B., S.J.D., J.S.D., Professor of Law.
 W. H. TOULSON, A.B., M.Sc., M.D., Professor of Genito-Urinary Surgery.
 EDUARD UHLENHUTH, Ph.D., Professor of Anatomy.
 ALLEN FISKE VOSHELL, A.B., M.D., Professor of Orthopaedic Surgery.
 HENRY J. WALTON, M.D., Professor of Roentgenology.

LEO J. WALZAK, D.D.S., Professor of Periodontia.
 HUNTINGTON WILLIAMS, M.D., D.P.H., Professor of Hygiene and Public Health.
 WALTER D. WISE, M.D., Professor of Surgery.
 J. CARLTON WOLF, B.S., Phar.D., Sc.D., Professor of Dispensing Pharmacy.
 H. BOYD WYLIE, M.D., Professor of Biological Chemistry.
 WAITMAN F. ZINN, M.D., Clinical Professor of Diseases of the Nose and Throat.

ASSOCIATE PROFESSORS

FRANKLIN B. ANDERSON, M.D., Associate Professor of Diseases of the Nose and Throat and Otology.
 THOMAS B. AYCOCK, B.S., M.D., Associate Professor of Surgery.
 WALTER A. BAETJER, A.B., M.D., Associate Professor of Medicine.
 J. MCFARLAND BERGLAND, B.S., M.D., Associate Professor of Obstetrics.
 THOMAS R. CHAMBERS, A.M., M.D., Associate Professor of Surgery.
 CARL DAME CLARK, Associate Professor of Art as Applied to Medicine.
 PAUL W. CLOUGH, B.S., M.D., Associate Professor of Medicine.
 RICHARD G. COBLENTZ, M.A., M.D., Associate Professor of Neurological Surgery.
 B. OLIVE COLE, Phar.D., LL.B., Associate Professor of Economics and Pharmaceutical Law.
 MONTE EDWARDS, M.D., Associate Professor of Surgery, and Associate in Diseases of the Rectum and Colon.
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 FRANK H. FIGGE, Ph.D., Associate Professor of Gross Anatomy.
 LEON FREEDOM, M.D., Associate Professor of Neurology, and Instructor in Pathology.
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 THOMAS C. GRUBB, Ph.D., Associate Professor of Bacteriology.
 O. G. HARNE, Associate Professor of Histology.
 RAYMOND HUSSEY, M.A., M.D., Associate Professor of Medicine.
 EDWARD S. JOHNSON, M.D., Associate Professor of Surgery.
 L. A. M. KRAUSE, M.D., Associate Professor of Medicine.
 MILFORD LEVY, M.D., Associate Professor of Neurology.
 R. W. LOCHER, M.D., Associate Professor of Clinical Surgery.
 WM. S. LOVE, JR., A.B., M.D., Associate Professor of Medicine and Instructor in Pathology.
 H. J. MALDEIS, M.D., Associate Professor of Medical Jurisprudence.
 N. CLYDE MARVEL, A.B., M.D., Associate Professor of Surgery.
 JAS. G. MCALPINE, Ph.D., Associate Professor of Bacteriology.
 SYDNEY R. MILLER, B.S., M.D., Associate Professor of Medicine.
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CHARLES A. REIFSCHNEIDER, M.D., Associate Professor of Traumatic Surgery and Oral Surgery (Medicine); Assistant Professor of Oral Surgery (Dentistry).
 A. W. RICHESON, Ph.D., Associate Professor of Mathematics.
 HARRY L. ROGERS, M.D., Associate Professor of Orthopaedic Surgery.
 EMIL G. SCHMIDT, Ph.D., LL.D., Associate Professor of Biological Chemistry.
 G. M. SETTLE, A.B., M.D., Associate Professor of Neurology and Clinical Medicine.
 D. CONRAD SMITH, Ph.D., Associate Professor of Physiology.
 WILLIAM H. SMITH, M.D., Associate Professor of Clinical Medicine.
 THOMAS R. SPRUNT, A.B., M.D., Associate Professor of Medicine.
 RALPH P. TRUITT, M.D., Associate Professor of Psychiatry.
 GRANT E. WARD, A.B., M.D., Associate Professor of Surgery (Medicine); Lecturer in Oncology (Dentistry).
 HENRY E. WICH, Phar.D., Associate Professor of Inorganic and Analytical Chemistry.
 LAWRENCE F. WOOLLEY, M.D., Associate Professor of Psychiatry.
 HELEN E. WRIGHT, R.N., Supervisor of Nursing Education.

ASSISTANT PROFESSORS

MYRON S. AISENBERG, D.D.S., F.A.C.D., Assistant Professor of Embryology and Histology.
 MARVIN J. ANDREWS, Ph.C., B.S. in Phar., M.S., Assistant Professor of Pharmacy.
 BRIDGEWATER M. ARNOLD, A.B., LL.B., Assistant Professor of Law.
 LEO BRADY, A.B., M.D., Assistant Professor of Gynecology.
 H. M. BUBERT, M.D., Assistant Professor of Medicine.
 T. NELSON CAREY, M.D., Assistant Professor of Medicine, and Physician in Charge of the Medical Care of Students.
 C. JELLEFF CARR, Ph.D., Assistant Professor of Pharmacology.
 WILLIAM E. EVANS, Ph.D., Assistant Professor of Pharmacology.
 MAURICE FELDMAN, M.D., Assistant Professor of Gastro-Enterology.
 A. H. FINKELSTEIN, M.D., Assistant Professor of Pediatrics.
 THOMAS K. GALVIN, M.D., Assistant Professor of Gynecology.
 GRAYSON W. GAVER, D.D.S., Assistant Professor of Prosthetic Dentistry.
 HARRY GOLDSMITH, M.D., Assistant Professor of Psychiatry.
 ORVILLE C. HURST, D.D.S., Assistant Professor of Clinical Crown and Bridge.
 ALBERT JAFFE, M.D., Assistant Professor of Pediatrics.
 GEORGE C. KARN, D.D.S., Assistant Professor of Radiodontia.
 HARRY E. LATCHAM, D.D.S., F.A.C.D., Assistant Professor of Operative Dentistry.
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 GEORGE MCLEAN, M.D., Assistant Professor of Medicine.

WALTER C. MERKEL, A.B., M.D., Assistant Professor of Pathology.
 ZACHARIAH MORGAN, M.D., Assistant Professor of Gastro-Enterology.
 SAMUEL MORRISON, M.D., Assistant Professor of Gastro-Enterology.
 HARRY M. MURDOCK, B.S., M.D., Assistant Professor of Psychiatry.
 H. W. NEWELL, M.D., Assistant Professor of Psychiatry.
 M. ALEXANDER NOVEY, A.B., M.D., Assistant Professor of Obstetrics.
 WALTER L. OGGESEN, D.D.S., Assistant Professor of Crown and Bridge.
 ROBERT H. OSTER, Ph.D., Assistant Professor of Physiology.
 H. R. PETERS, A.B., M.D., Assistant Professor of Medicine.
 BENJAMIN PUSHKIN, M.D., Assistant Professor of Neurology.
 J. G. M. REESE, M.D., Assistant Professor of Obstetrics.
 RUSSELL R. RENO, A.B., LL.B., Assistant Professor of Law.
 FRANK J. SLAMA, B.S. in Phar., Ph.D., Assistant Professor of Botany.
 FREDERICK B. SMITH, M.D., Assistant Professor of Pediatrics.
 EDGAR B. STARKEY, Ph.D., Assistant Professor of Organic Chemistry.
 GEORGE A. STRAUSS, JR., M.D., Assistant Professor of Gynecology.
 A. ALLEN SUSSMAN, A.B., D.D.S., M.D., Assistant Professor of Anatomy.
 VESTA L. SWARTZ, R.N., Assistant Superintendent of Nurses.
 GUY P. THOMPSON, A.M., Assistant Professor of Zoology.
 JOHN H. TRABAND, M.D., Assistant Professor of Pediatrics.
 E. G. VANDEN BOSCHE, Ph.D., Assistant Professor of Inorganic and Physical Chemistry.
 C. GARDNER WARNER, A.B., M.D., Assistant Professor of Pathology.
 J. HERBERT WILKERSON, M.D., Assistant Professor of Anatomy.
 R. G. WILLSE, M.D., Assistant Professor of Gynecology.
 THOMAS C. WOLFF, Litt.B., M.D., C.M., Assistant Professor of Medicine.
 ROBERT B. WRIGHT, B.S., M.D., Assistant Professor of Pathology.

LECTURERS

J. WALLACE BRYAN, Ph.D., LL.B., Lecturer on Pleadings.
 HUNTINGTON CAIRNS, LL.B., Lecturer on Taxation.
 JAMES T. CARTER, A.B., LL.B., Ph.D., Lecturer on Legal Bibliography.
 HON. W. CALVIN CHESNUT, A.B., LL.B., Lecturer on Federal Procedure.
 WALTER L. CLARK, LL.B., Lecturer on Evidence.
 HON. EDWIN T. DICKERSON, A.M., LL.B., Lecturer on Contracts.
 HON. ELI FRANK, A.B., LL.B., Lecturer on Torts.
 E. B. FREEMAN, B.S., M.D., Lecturer in Medicine.
 JONAS FRIEDENWALD, M.A., M.D., Lecturer in Ophthalmic Pathology.
 CHARLES R. GOLDSBOROUGH, M.A., M.D., Lecturer in Medicine.
 GEORGE GUMP, A.B., LL.B., Lecturer on Future Interests and Taxation.
 RICHARD C. LEONARD, D.D.S., Lecturer on Oral Hygiene and Preventive Dentistry.
 JOHN M. MCFALL, M.A., LL.B., Lecturer on Insurance.
 GERALD MONSMAN, A.B., LL.B., J.D., Supervisor, Legal Aid Work.
 HON. EMORY H. NILES, A.B., B.A. in Jurisprudence, B.C.L., M.A., LL.B., Lecturer on Admiralty.

G. RIDGELY SAPPINGTON, LL.B., Lecturer on Practice; Director of Practice Court.
 WILLIAM H. TRIPLETT, M.D., Lecturer on Physical Diagnosis (Dentistry); Assistant in Medicine (Medicine).
 R. DORSEY WATKINS, Ph.D., LL.B., Lecturer on Torts, Suretyship and Mortgages.

ASSOCIATES

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 JAS. G. ARNOLD, JR., A.B., M.D., Associate in Neurology and Assistant in Pathology.
 H. F. BONGARDT, M.D., Associate in Surgery.
 KENNETH B. BOYD, M.D., Associate in Gynecology and Assistant in Obstetrics.
 J. EDMUND BRADLEY, M.D., Associate in Pediatrics.
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FACULTY COMMITTEES

At Baltimore

LIBRARY

(Medicine) Doctors Lockard, Wylie, and Love, Jr.; (Dentistry) Doctors Gaver, Aisenberg, and Hardy; (Pharmacy) Dean DuMez, Messrs. Hartung, M. R. Thompson, and Slama; (Law) Messrs. Reiblich and Strahorn.

The Faculty Councils of the Baltimore Schools are included in the descriptive statements of the respective schools in Section II.

The Faculty Committees of the Baltimore Schools are given in the separate announcements issued by the several schools.

SECTION I General Information

HISTORICAL STATEMENT

The history of the present University of Maryland, before the merger in 1920, is the history of two institutions: the old University of Maryland in Baltimore and the Maryland State College (formerly Maryland Agricultural College) at College Park.

This history began in 1807 when the College of Medicine of Maryland was organized, the fifth medical school in the United States. The first class was graduated in 1810. A permanent home was established in 1814-1815 by the erection of the building at Lombard and Greene Streets in Baltimore, the oldest structure in America devoted to medical teaching. Here was founded one of the first medical libraries (and the first medical school library) in the United States. In 1812 the General Assembly of Maryland authorized the College of Medicine of Maryland to "annex or constitute faculties of divinity, law, and arts and sciences," and by the same act declared that the "colleges or faculties thus united should be constituted an university by the name and under the title of the University of Maryland." By authority of this act, steps were taken in 1813 to establish "a faculty of law," and in 1823 a regular school of instruction in law was opened. Subsequently there were added in 1882 a Department of Dentistry which was absorbed in 1923 by the Baltimore College of Dental Surgery (founded in 1840, the first dental school in the world); in 1889 a School of Nursing; and in 1904 the Maryland College of Pharmacy (founded in 1841, the third oldest pharmacy college in the United States).

The Maryland State College was chartered in 1856 under the name of the Maryland Agricultural College, the second agricultural college in the Western Hemisphere. For three years the College was under private management. In 1862 the Congress of the United States passed the Land Grant Act. This act granted each State and Territory that should claim its benefits a proportionate amount of unclaimed western lands, in place of scrip, the proceeds from the sale of which should apply under certain conditions to the "endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such a manner as the Legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life." This grant was accepted by the General Assembly of Maryland, and the Maryland Agricultural College was named as the beneficiary of the grant. Thus the College became, at least

in part, a State institution. In the fall of 1914 control was taken over entirely by the State. In 1916 the General Assembly granted a new charter to the College, and made it the Maryland State College.

In 1920, by an act of the State Legislature, the University of Maryland was merged with the Maryland State College, and the name of the latter was changed to the University of Maryland.

All the property formerly held by the old University of Maryland was turned over to the Board of Trustees of the Maryland State College, and the name was changed to the Board of Regents of the University of Maryland. Under this charter every power is granted necessary to carry on an institution of higher learning and research. It provides that the University shall receive and administer all existing grants from the Federal Government for education and research and all future grants which may come to the State from this source. The University is co-educational in all its branches.

ADMINISTRATIVE ORGANIZATION

The government of the University is vested by law in a Board of Regents, consisting of nine members appointed by the Governor each for a term of nine years. The administration of the University is vested in the President. The University General Administrative Board acts in an advisory capacity to the President. The composition of these bodies is given elsewhere.

The University organization comprises the following administrative divisions:

- College of Agriculture.
- Agricultural Experiment Station.
- Extension Service.
- College of Arts and Sciences.
- College of Commerce.
- College of Education.
- College of Engineering.
- College of Home Economics.
- Graduate School.
- Summer Session.
- Department of Military Science and Tactics.
- School of Dentistry.
- School of Law.
- School of Medicine.
- School of Nursing.
- School of Pharmacy.
- The University Hospital.

The University faculty consists of the President, the Deans, the instructional staffs of all the divisions of the University, and the Librarians. The faculty of each college or school constitutes a group which passes on all questions that have exclusive relationship to the division represented. The President is ex-officio a member of each of the faculties.

The organization and activities of the several administrative divisions are described in full in the appropriate chapters of Section II.

PRINCESS ANNE COLLEGE

Princess Anne College, located at Princess Anne, Somerset County, is maintained for the education of Negroes in agriculture, the mechanic arts, and home economics.

The new buildings, now in process of construction, furnish space for Administrative Offices; Home Economics; Mechanic Arts; and Gymnasium and Recreation. The funds for these structures were provided from a State appropriation and a P. W. A grant.

LOCATION

The University of Maryland is located at College Park, in Prince Georges County, Maryland, eight miles from Washington and thirty-two miles from Baltimore. The campus fronts on the Baltimore-Washington Boulevard.

The Professional Schools of the University and the University Hospital are located in the vicinity of Lombard and Greene Streets, Baltimore.

GROUPS AND BUILDINGS

College Park

Grounds. The University grounds at College Park comprise 291 acres. The site is healthful and attractive. The terrain is varied. A broad rolling campus is surmounted by a commanding hill which overlooks a wide area of surrounding country and insures excellent drainage. Many of the original forest trees remain. Most of the buildings are located on this eminence. The adjacent grounds are laid out attractively in lawns and terraces ornamented with shrubbery and flower beds. Below the brow of the hill, on either side of the Washington-Baltimore Boulevard, lie the drill grounds and the athletic fields. About fifty acres are used by the College of Agriculture for experimental and teaching purposes in orchards, vineyards, vegetables, ornamental plantings and turf grasses. In addition, the University maintains adjacent to the campus, two hundred and eighty-four acres for research and teaching work in dairying, livestock and poultry, and five hundred and eight acres for plant research work on a farm located five miles northwest of the campus.

The water supply and sewage disposal are provided by the Washington Suburban Sanitary Commission.

Buildings. The buildings comprise about 28 individual structures, which provide facilities for the several activities and services carried on at College Park.

Administration and Instruction. This group consists of the following buildings: the Agriculture Building, which accommodates the College of

Agriculture, the College of Education, the Agricultural and Home Economics Extension Service, and the Auditorium; the Library Building, which houses the Library and the Executive Offices; Morrill Hall, which accommodates in part the College of Arts and Sciences; the Old Library Building, in which are the offices of the Dean of Women; the Engineering Building; the Student Center, in which are located the offices of the student publications; the Home Economics Building; the Chemistry Building for instruction in Chemistry and for State work in analysis of feeds, fertilizers, and agricultural lime; the Dairy Building; the Horticulture Building, which adequately accommodates all class room and laboratory work in horticulture, and also work in horticultural research for both Government and State; the Plant Research Building; the Poultry Buildings; the Central Heating Plant; and an Arts and Sciences Building.

Experiment Station. The offices of the Director of the Experiment Station are located in the Agricultural Building. In this same building are the laboratories in Agronomy, Botany and Bacteriology. Other structures are as follows: the Horticulture Building, dairy, beef cattle, horse and sheep barns, farm machinery buildings, silos and other structures required in agricultural research.

Physical Education. This group consists of The Ritchie Coliseum, which provides quarters for all teams, an athletic office, trophy room, rooms for faculty, and visiting team rooms, together with a playing floor and permanent seating arrangements for 4,262 persons; Byrd Stadium, with a permanent seating capacity of 8,000, also furnished with rest rooms for patrons, dressing rooms, and equipment for receiving and transmitting information concerning contests in progress; a Gymnasium, used in part by the Military Department and generally for physical education work; and the Girls' Field House, for all girls' sports. Playing and practice fields and tennis courts are adjacent to the field houses.

Dormitories. Two dormitories, Calvert Hall and Silvester Hall, provide accommodations for 462 men students. Accommodations for 228 women students are provided by Margaret Brent Hall and the new dormitory, completed this year. Gerneaux Hall, formerly used as a dormitory for women students, is now occupied by one of the sororities. The Practice House, which for several years was used as a dormitory, has been turned over entirely to the Home Economics Department.

Rosshourg Inn. The remodeling and reconditioning of this old landmark are nearly completed. This building, which in the main is Georgian in character, will be furnished in accordance with the Period. It will serve both as an historical monument and a home for some of the various activities of the University.

Service Structures. This group includes the Central Heating Plant; the enlarged Infirmary, with accommodations for forty patients, physician's office, operating room, and nursing quarters; Dining Hall, and Laundry.

New Construction. At the present time there are under construction the following new buildings or additions to old: Administration; Dining Hall;

Men's Dormitory group; Home Economics; Chemistry; Poultry Husbandry; Engineering; Shops and Service; and Greenhouses. The funds for these structures were provided by a State appropriation and a grant from the Federal Emergency Administration of Public Works. It is expected that these buildings will be ready for occupancy by the beginning of the first semester in September, 1939.

U. S. Bureau of Mines Building. A new research laboratory building for the United States Bureau of Mines has been completed this year, and is known as the Eastern Experiment Station. In addition to the general laboratories, which are being used for instruction in engineering as well as by the United States Government, there is a geological museum and technical library, one of the finest of its kind in the United States.

Baltimore

The group of buildings located in the vicinity of Lombard and Greene Streets provides available housing for the Baltimore division of the University. The group comprises the original Medical School building, erected in 1814, the University Hospital, the Central Office building, a new Laboratory building for the Schools of Dentistry and Pharmacy, and a new Law School building. Full descriptions of these parts of the University equipment are found in the chapters devoted to the Baltimore Schools in Section II.

A new University Hospital, at the corner of Greene and Redwood Streets, containing 400 beds and providing fine clinical facilities, was completed in November, 1934.

New Construction. The Frank C. Bressler Research Laboratory is being erected with funds provided by the late Dr. Frank C. Bressler of Baltimore, supplemented by a P. W. A. grant. Additions to the University Hospital, Dental Building, and Nurses' Home are being constructed with funds provided by the State and a supplementary P. W. A. grant.

THE UNIVERSITY LIBRARIES

Libraries are maintained at both the College Park and Baltimore branches of the University.

The Library at College Park, completed in 1931, is an attractive, well equipped, and well lighted structure. The reading room on the second floor seats 236, and has about 5,000 reference books and bound periodicals on open shelves. The five-tier stack room is equipped with 18 carrels for the use of advanced students. About 12,000 of the 80,000 volumes on the campus are shelved in the Chemistry and Entomology departments, the Graduate School, and other units. Over 600 periodicals are currently received.

Facilities in Baltimore consist of the Libraries of the School of Dentistry, containing some 6,500 volumes; the School of Law, 15,500 volumes; the School of Medicine, 19,000 volumes; and the School of Pharmacy, 7,500 volumes. The Medical Library is housed in Davidge Hall; the remaining

three libraries have adequate quarters in the buildings of their respective schools, where they are readily available for use. Facilities for the courses in Arts and Sciences are offered jointly by the Libraries of the Schools of Dentistry and Pharmacy.

The libraries of the University total in the aggregate about 128,500 bound volumes and large collections of unbound journals. The Library is a depository for publications of the United States Government, and numbers some 13,000 documents in its collections.

The University Library is able to supplement its reference service by borrowing material from other libraries through Inter-Library Loan and Bibliofilm Service, or by arranging for personal work in the Library of Congress, the United States Department of Agriculture Library, and other agencies in Washington.

ADMISSION

All correspondence regarding admission should be addressed to the Director of Admissions. That pertaining to the colleges of Agriculture, Arts and Sciences, Commerce, Education, Engineering, Home Economics, the Graduate School, and the Summer Session should be mailed to the University of Maryland, College Park; that pertaining to the schools of Dentistry, Law, Medicine, Nursing, and Pharmacy should be mailed to the University of Maryland, Lombard and Greene Streets, Baltimore.

Information about admission to the professional schools in Baltimore will be found in their respective sections of this catalogue (see Index), and in the bulletins issued by the several schools.

Age of Applicants: A student who is less than sixteen years of age must live with his parents or guardians.

Admission Procedure: Candidates for admission should procure application blanks from the office of the Director of Admissions as early as possible. It would not be too soon for secondary school seniors to write for the blanks shortly after the beginning of their final school term.

If the application, with the school record through the first semester of the senior year, is returned before graduation to the Director of Admissions, then the applicant should request the principal to send in a supplementary report after graduation—with the grades for the final term, a statement with date of graduation, the rank of the student in the graduating class, and whether the applicant is recommended for admission. All other candidates for admission, also, should submit their applications as early as possible.

A certificate of admission and material pertaining to registration will be mailed to each applicant whose credentials are acceptable. The Director of Admissions will be pleased to advise, either in person or by correspondence, with prospective students, their parents, or other interested persons concerning the preparation of the applicants, or on any questions that relate to admission to the University.

Time of Admission: Applicants for admission should plan to enter the University at the beginning of the school year in September. It is possible, however, to be admitted to certain curricula at the beginning of either semester.

Registration: New students will register on Wednesday and Thursday, September 13 and 14, 1939. The English placement and psychological and other required tests are a part of the registration procedure.

A special freshman program will be followed between registration and the beginning of the instruction schedule, the object of which is to complete the organization of freshmen so that they may begin their regular work promptly and effectively, and familiarize themselves with their new surroundings.

ADMISSION FROM SECONDARY SCHOOLS

An applicant from a secondary school may be admitted either by certificate or by examination or by a combination of the two methods.

Admission by Certificate: An applicant must be a graduate of a secondary school which is approved by the State Board of Education of Maryland or by an accrediting agency of at least equal rank, and which requires for graduation not fewer than fifteen units. A unit represents a year's study in any subject in a secondary school, and constitutes approximately one-fourth of a full year's work. It presupposes a school year of 36 to 40 weeks, recitation periods of from 40 to 60 minutes, and for each study four or five class exercises a week. A double laboratory period in any science or vocational study is considered equivalent to one class exercise. Normally, not more than three units are allowed for four years of English. If, however, a fifth course has been taken, an extra unit will be granted.

A graduate of an approved secondary school in Maryland who meets the certification requirement of the State Department of Education, or the Department of Education of Baltimore City; or a graduate of an approved secondary school in the District of Columbia who meets the certification grade of his school, will be admitted upon presentation of the proper certificate from the principal. A graduate who does not meet fully these requirements may be required to present further evidence of ability to undertake college work. At the discretion of the Director of Admissions, this may include an appropriate examination. Admission examinations will be given during the first week of each of the months of July, August, and September at College Park. Applicants concerned will be notified as to when they should report.

An applicant for admission by certificate from a secondary school not located in Maryland or in the District of Columbia must be recommended by the principal, and should have attained the certification-to-college grade of the school. If the school does not have such a quality grade, then the applicant's school grades should be at least ten points or one letter higher than the lowest passing grade of the school.

Admission by Examination: An applicant from a secondary school who is not eligible for admission by certificate may seek entrance through either of two types of examination: (1) he may appeal to the Director of Admissions for permission to report at the University for an examination, the result of which will be used in conjunction with the secondary school record to determine whether the applicant should be admitted; or (2) he may be admitted on presenting evidence of having passed satisfactorily other approved examinations in the subjects required for graduation from an accredited secondary school. Such examinations are offered by the College Entrance Examination Board, 431 West 117th Street, New York City; the Regents of the University of the State of New York, Albany; and the Department of Public Instruction of the State of Pennsylvania, Harrisburg.

UNDERGRADUATE CURRICULA

The following curricula are available. The letters placed after the names of the curricula (see Index) refer to the columnar arrangement of the entrance requirements below.

College of Agriculture

- Agricultural Education and Rural Life—A
- Agricultural Engineering—C
- Agronomy
- Farm Crops—A
- Soils—A
- Animal Husbandry—A
- *Bacteriology—A
- †Biological Chemistry—C
- †Botany
- General Botany and Morphology—A
- Plant Pathology—A
- Plant Physiology and Ecology—A
- Dairy Husbandry
- Dairy Manufacturing—A
- Dairy Production—A
- †Entomology—A
- Farm Management—A
- Food Technology—A
- General Agriculture—A
- Genetics and Statistics—A
- Horticulture
- Floriculture—A
- Landscape Gardening—A
- Olericulture—A
- Pomology—A
- Poultry Husbandry—A

College of Arts and Sciences

- *Bacteriology—A
- *Botany—A
- ||Chemical Engineering—C
- Chemistry
- *Biological—C
- General—C
- Industrial—C
- †Economics—A
- §Education—A
- English—A
- *Entomology—A
- French—A
- General Biological Sciences—A
- General Physical Sciences—C
- *Genetics—A
- German—A
- History—A

College of Arts and Sciences (con'd)

- Mathematics—C
- Physics—C
- Political Science—A
- Preadental—A
- †Prelaw—A
- Premedical—D
- Prenursing—A
- Psychology—A
- Sociology—A
- Spanish—A
- Statistics—A
- Zoology—A

College of Commerce

- Accounting—A
- Agricultural Economics—A
- Cooperative Organization and Administration—A
- †Economics—A
- Finance—A
- General Business—A
- Marketing and Sales Administration—A
- †Prelaw—A

College of Education

- †Arts and Sciences—A
- Commercial—E
- ¶Home Economics—B
- Industrial—A (also in Baltimore)
- Physical—A

College of Engineering

- †Chemical—C
- Civil—C
- Electrical—C
- Mechanical—C
- Mechanical with Aeronautical option—C

College of Home Economics

- §Education—B
- Extension—B
- Foods and Nutrition—B
- General Home Economics—B
- Institution Management—B
- Practical Art—B
- Textiles and Clothing—B

*Also College of Agriculture. †Also College of Arts and Sciences. ‡Also College of Commerce. §Also College of Education. ||Also College of Engineering. ¶Also College of Home Economics.

The unit requirements for admission to the foregoing curricula are indicated in the following table, the requirements for a particular curriculum being given in the column headed by the letter which follows the name of the curriculum in the above list:

	A	B	C	D	E
English	3	3			
Algebra	1		3	3	3
Plane Geometry.....	*1		**2	1	1
Solid Geometry.....			1	1	
Mathematics			**1½		
History		2			
Science	1	1	1	1	1
Foreign Language.....	1	1	1	1	1
Stenography				2	
Typewriting					2
Bookkeeping					1
Electives					1
	8	8	6½	6	5
Total	15	15	15	15	15

(Not more than four vocational units may be offered.)

Conditional Admission: An applicant who is eligible otherwise to be admitted to the University, but who cannot meet the specific entrance units required for the curriculum of his choice may register as a non-classified student. Classification as a regular student is automatic when the entrance deficiency is absolved.

ADMISSION BY TRANSFER FROM OTHER COLLEGES AND UNIVERSITIES

A candidate for admission by transfer from another college or university must present evidence that he has maintained a satisfactory and honorable record at the other institution. The applicant should file as early as possible the formal application blank (which may be obtained from the office of the Director of Admissions), together with the official transcripts of the secondary school and college records, including a statement of honorable dismissal.

Advanced standing is granted for courses completed elsewhere which are equivalent in extent and quality to those given by the University of Maryland, subject to the following provisions:

- (1) Regardless of the amount of advanced standing a student may be allowed, the baccalaureate degree will not be conferred under any circumstances until a year of resident work shall have been completed.

*In the College of Agriculture, with the exception of curricula which include trigonometry, a second unit of any mathematics may be substituted for the requirement in plane geometry, provided the applicant ranks in the upper three-fifths of his secondary school class.

**An applicant who cannot offer the second unit in algebra and the one-half unit in solid geometry may be admitted to the College of Engineering, and to the curricula in Chemistry, Mathematics, and Physics, but will be obliged during the first semester to make up the advanced algebra and solid geometry. The regular first semester mathematics would be taken in the second semester, and the second semester mathematics would be taken in the summer session. An applicant who does not have entrance credit for solid geometry would take this course concurrently with the regular first semester mathematics. Students in either of these groups would register with regular classification.

- (2) Regardless of the amount of advanced standing allowed, the baccalaureate degree will not be conferred until the student shall have satisfied the full requirements of the curriculum elected.
- (3) If the character of the student's work in any subject is such as to create doubt as to the quality of that which preceded it elsewhere, the University reserves the right to revoke at any time any advanced standing credit allowed.
- (4) Credit will not be granted for more than one-fourth of the total credit value of those courses which were passed with the lowest passing grade of the college attended.
- (5) An applicant may request an examination for advanced standing in any subject, in keeping with the requirements prescribed by the University of Maryland.

UNCLASSIFIED STUDENTS

Applicants who are at least twenty-one years of age and who have had insufficient preparation to be admitted to any of the four-year curricula may register, with the consent of the Director of Admissions, for such courses as they may appear fitted to take. The student is ineligible to matriculate for a degree, however, so long as he retains an unclassified status.

REQUIREMENT IN MILITARY INSTRUCTION

All male students classified academically as freshmen or sophomores, who are citizens of the United States and who are physically fit to perform military duty, are required to take basic military training for a period of two years as a prerequisite to graduation.

Graduation Requirements for Students Excused from Military Instruction and Physical Education

Students excused from basic military training or physical education without academic credit shall be required to take an equivalent number of credits in other subjects, so that the total credits required for a degree in any college shall not be less than 126 hours. The substitution must be approved by the dean of the college concerned.

REQUIREMENTS IN PHYSICAL EDUCATION FOR WOMEN

All women students whose bodily condition indicates that they are physically fit for exercise are required to take physical education for a period of two years, as a prerequisite to graduation.

HEALTH SERVICE PHYSICAL EXAMINATIONS

As soon as possible after the opening of the fall semester, as a measure for protecting the general health, all students who enter the undergraduate colleges at College Park are given a physical examination. The examination of the men students is conducted by the University Physician in cooperation with the Physical Education and Military Departments.

The examination of women students is conducted by a woman physician in cooperation with the office of Physical Education for Women. The woman physician has her offices in the Girls' Field House. She is available for consultation by all women students at hours to be arranged.

INFIRMARY RULES

1. All undergraduate students may receive dispensary service and medical advice by reporting at the Infirmary during regular office hours established by the physician in charge.

Nurses' office hours 8 to 10 A. M. and 6 to 7 P. M.

Doctor will have office hour from 12 to 1 daily except Sundays.

Office hours on Sunday by appointment only.

2. A registered nurse is on duty at all hours at the Infirmary. Between the hours of 2 and 4 in the afternoon, quiet hour is observed. During this time students are requested not to report except in case of an emergency.

3. Students not living in their own homes who need medical attention and who are unable to report to the Infirmary should call one of the University physicians. Such visits will be free of charge except in cases where additional visits are necessary. For such additional visits as may be necessary, the University physician will make his usual charge. But, if a student so desires, he may call a physician of his own choice and at his own expense.

4. Students not residing in their own homes may, upon the order of the University physician, be cared for in the Infirmary to the extent of the facilities available. Students who live off the campus will be charged a fee of two dollars a day.

5. The visiting hours are 1 to 2, 6:30 to 8 p. m. daily. No visitor may see any patient until permission is granted by the nurse in charge.

6. Hospitalization is not available at the Infirmary for graduate students and employees. Dispensary service, however, is available for graduate students and employees who are injured in University service or University activities.

7. For employees of the University who handle food and milk, the University reserves the right to have its physician make physical examinations, and such inspections of sanitary conditions in homes as in the opinion of the University physician, may be desirable.

8. Students living in the dormitories who are unable to attend classes because of illness or who are unable to report to the Infirmary should report to their dormitory matrons, who will notify the Infirmary immediately.

9. Students who are ill in their homes, fraternity houses, or dormitories and wish a medical excuse for classes missed during the time of illness must present written excuses from their physicians, parents, or house mothers. These excuses will be approved by the University physicians or nurse.

REGULATIONS, GRADES, DEGREES

REGULATION OF STUDIES

Course Numbers. Courses for undergraduates are designated by numbers 1—99; courses for advanced undergraduates and graduates, by numbers 100—199*; and courses for graduates, by numbers 200—299.

The letter following the number of a course indicates the semester in which the course is offered; thus, course 1f is offered in the first semester; 1s, in the second semester. The letter "y" indicates a full-year course. The number of semester hours' credit is shown by the arabic numeral in parentheses after the title of the course. No credit is allowed for a "y" course until it is completed.

Schedule of Courses. A semester time schedule of courses, giving days, hours, and rooms, is issued as a separate pamphlet at the beginning of each semester. Classes are scheduled beginning 8:20 A. M.

Definition of Credit Unit. The semester hour, which is the unit of credit in the University, is the equivalent of a subject pursued one period a week for one semester. Two or three periods of laboratory or field work are equivalent to one lecture or recitation period. The student is expected to devote three hours a week in classroom or laboratory or in outside preparation for each credit hour in any course.

Number of Hours. The normal student load is from 15 to 19 semester hours, according to curriculum and year. These variations are shown in the appropriate chapters in Section II describing the several divisions of the University. No student may carry either more or less than the prescribed number of hours without specific permission from the dean of his college.

EXAMINATION AND MARKS

Examinations. Examinations are held at the end of each semester in accordance with the official schedule of examinations. Students are required to use the prescribed type of examination book in final examinations; and in tests, when requested to do so by the instructor.

Final examinations are held in all courses except in classes where the character of the work will permit the instructor to note frequently the progress and proficiency of the student—in which case they may be omitted upon approval of the head of the department and dean of the college. Periodic examinations and tests are given during regularly scheduled class periods. Final examinations, where required, are given according to schedule and are of not more than three hours' duration each.

*But not all courses numbered 100 to 199 may be taken for graduate credit.

Marking. The system of marking is uniform in the different departments and divisions of the University.

The following symbols are used for marks: A, B, C, D, E, F, and I. The first four, A, B, C, and D, are passing; E, condition; F, failure; I, incomplete.

Mark A denotes superior scholarship; mark B, good scholarship; Mark C, fair scholarship and mark D, passing scholarship.

At least three-fourths of the credits required for graduation must be earned with marks of A, B, and C. A student who receives the mark of D in more than one-fourth of his credits must take additional courses or repeat courses until he has met these requirements.

In the case of a candidate for a combined degree or of a transfer student with advanced standing, a mark of D will not be recognized for credit towards a degree in more than one-fourth of the credits earned at this institution.

A student with a mark of E is conditioned in the course. The mark of E may be changed to D or F by a re-examination during the succeeding semester. The E mark cannot be raised to a mark higher than D. Only one re-examination is permitted; and if a student does not remove the condition in this re-examination, the condition becomes a failure.

A student with a mark of F has failed in the course and must repeat the entire course in order to receive credit for it. In case of a failure in a required course a student must enroll in that subject again the first time it is offered unless excused by the dean.

The mark of I (Incomplete) is exceptional, and is to be given only to a student whose work in a course has been qualitatively satisfactory, when, because of illness or other circumstances beyond his control, he has been unable to complete the requirement. In each case where the instructor gives an I, he shall enter on the class card a reason of the nature stated above, with an estimate of the quality of the student's work. In cases where this mark is given the student must complete the work assigned by the instructor by the end of the first semester in which that subject is again offered or the mark becomes F.

Work of mark D, or of any passing mark, cannot be raised to a higher mark except by repeating the course. A student who repeats a course for which he has received credit for work done at the University, or elsewhere, must meet all the requirements of the course, including regular attendance, laboratory work, and examinations. His final mark will be substituted for the mark already recorded, but he will not receive any additional credit for the course.

A mark of D received in the first semester of a course cannot be raised by virtue of a higher mark earned in the second semester of that course.

REPORTS

Written reports of grades are sent by the Registrar to parents or guardians at the close of each semester.

ELIMINATION OF DELINQUENT STUDENTS

A student must attain marks higher than E or F in fifty per cent of the semester hours for which he is registered, or he is automatically dropped from the University. The registrar notifies the student, his parent or guardian, and the student's dean of this action. A student who has been dropped for scholastic reasons may appeal in writing to the Committee on Admission, Guidance, and Adjustment for reinstatement. The Committee is empowered to grant relief for just cause. A student who has been dropped from the University for scholastic reasons, and whose petition for reinstatement is denied, may again petition after a lapse of at least one semester.

The University reserves the right to request at any time the withdrawal of a student who cannot or does not maintain the required standard of scholarship, or whose continuance in the University would be detrimental to his or her health, or to the health of others, or whose conduct is not satisfactory to the authorities of the University. *Students of the last class may be asked to withdraw even though no specific charge be made against them.*

JUNIOR STANDING

No student will be certified as a junior, or be permitted to select a major or minor, or to continue in a fixed curriculum until he or she shall have passed with an average grade as high as C (2.0) the minimum number of semester credits required for junior standing in any curriculum.

DEGREES AND CERTIFICATES

The University confers the following degrees: Bachelor of Arts, Bachelor of Science, Master of Arts, Master of Science, Doctor of Philosophy, Civil Engineer, Mechanical Engineer, Electrical Engineer, Bachelor of Laws, Doctor of Medicine, Doctor of Dental Surgery, and Bachelor of Science in Pharmacy.

Students in the two-year and three-year curricula are awarded certificates.

The requirements for graduation vary according to the character of work in the different colleges and schools. For full information regarding the requirements for graduation in the several colleges consult the appropriate chapters in Section II.

No baccalaureate degree will be awarded to a student who has had less than one year of resident work in this University. The last thirty credits of any curriculum leading to a baccalaureate degree must be taken in residence at the University of Maryland.

At least three-fourths of the credits required for graduation must be earned with grades of A, B, and C.

In the case of a candidate for a combined degree or of a transfer student with advanced standing, a grade of D will not be recognized for credit towards a degree in more than one-fourth of the credits earned at this institution.

Each candidate for a degree must file in the office of the Registrar before March 1st of the year in which he expects to graduate, a formal application for a degree. In general, candidates for degrees to be conferred at the annual commencement, must be present to receive the degrees.

EXPENSES

MAKE ALL CHECKS PAYABLE TO THE UNIVERSITY OF MARYLAND FOR THE EXACT AMOUNT OF THE SEMESTER CHARGES.

In order that the cost of operation may be reduced, all fees are due and payable as a part of the student's registration, and all persons must come prepared to pay the full amount of the semester charges. No student will be admitted to classes until such payment has been made.

EXPENSES AT COLLEGE PARK

The University reserves the right to make such changes in fees and other costs as any occasion may make necessary. Such changes, however, in comparison with the total cost to the student would be only nominal.

FEES FOR UNDERGRADUATE STUDENTS

Maryland

	First Semester	Second Semester	Total
Fixed Charges	\$ 67.50		\$145.00
Athletic Fee	15.00		15.00
*Special Fee	10.00		10.00
**Student Activities Fee.....	10.00		10.00
Infirmary Fee	5.00		5.00
Post Office Box.....	2.00		2.00
	<u>\$109.50</u>	<u>\$ 77.50</u>	<u>\$187.00</u>

District of Columbia

	First Semester	Second Semester	Total
General Fees listed above.....	\$109.50	\$ 77.50	\$187.00
Non-Resident Fee	25.00	25.00	50.00
	<u>\$134.50</u>	<u>\$102.50</u>	<u>\$237.00</u>

Other States and Countries

	First Semester	Second Semester	Total
General Fee	\$109.50	\$ 77.50	\$187.00
Non-Resident Fee	62.50	62.50	125.00
	<u>\$172.00</u>	<u>\$140.00</u>	<u>\$312.00</u>

*This fee is used for improving the University grounds, and the physical training facilities, and for other University projects that have direct relationship to student activities.

** The Student Activities Fee is included at the request of the Student Government Association. Its payment is not mandatory, but it is really a matter of economy to the student, since it covers subscription to the student weekly paper, the literary magazine, and the year book; class dues, including admission to class dances; and admission to the performances of the musical and dramatic clubs.

Expenses of Students Living in Dormitories

	First Semester	Second Semester	Total
Board	\$135.00	\$135.00	\$270.00
Lodging	\$38.00-55.00	\$38.00-55.00	\$76.00-110.00
	<u>\$173.00-190.00</u>	<u>\$173.00-190.00</u>	<u>\$346.00-380.00</u>

Special Fees

Matriculation Fee, payable on first entrance.....	\$ 5.00
Diploma Fee for bachelor's degree.....	10.00
Pre-Medical and Pre-Dental Fee—Per semester in addition to fees shown above:	
Maryland	\$25.00
District of Columbia.....	25.00
Other States and Countries.....	62.50

Laboratory Fees Per Semester Course

For the fee in a given course see
Section III, Description of Courses

Bacteriology	\$5.00-\$8.00	Entomology	\$2.00-\$3.00
Botany	\$3.00-\$5.00	Home Economics	\$1.00-\$7.00
Chemistry	\$3.00-\$8.00	Industrial Education	\$2.50-\$4.00
Dairy	\$1.00-\$3.00	Physics	\$3.00-\$5.00
Engineering, All Students.....	\$2.50	Radio Speech	\$2.00
Engineering, Chemical.....	\$7.00-\$8.00	Zoology	\$3.00-\$5.00

Miscellaneous Fees

Late Registration Fee.....	\$3.00-\$5.00
Fee for each change in registration after first week.....	\$1.00
Fee for failure to file schedule card in Registrar's Office during first week of semester.....	\$1.00
Absence Fee twenty-four hours before or after holiday (for each class).....	\$3.00
Condition Examination Fee.....	\$1.00
Special Examination Fee.....	\$5.00
Fee for failure to report for medical examination appointment.....	\$2.00
Part-time students carrying six semester hours or less—per semester credit hour	\$6.00
Laundry service, when desired—per semester.....	\$13.50
Transcript of Record Fee.....	\$1.00

Students will be charged for wilful damage to property. Where responsibility for the damage can be fixed, the individual student will be billed for it; where it cannot, the entire student body will be charged a flat fee to cover the loss or damage.

Fees For Graduate Students

Matriculation Fee	\$10.00
Fee for each semester credit hour.....	6.00*
Diploma Fee—Master's Degree.....	10.00
Graduation Fee—Doctor's Degree.....	20.00

*For students carrying eight hours or less; for students carrying more than eight hours, \$50.00 for the semester.

EXPLANATIONS

The Fixed Charges made to all students cover a part of the overhead expenses not provided for by the State.

The Board, Lodging, and Laundry charge may vary from semester to semester, but every effort will be made to keep expenses as low as possible.

Fees for Students Entering in February. Students entering the University for the second semester are charged the following fees for the items indicated: Athletic, \$7.50; Special, \$5.00; Student Activities, \$8.00; Infirmary, \$2.50, and Post Office Box, \$1.00.

Fees for Part-Time Students. Undergraduate students carrying six semester hours or less of regularly scheduled courses are charged \$6.00 per semester credit and regular laboratory fees. Students carrying seven or more semester hours are charged the regular fees. In the case of special courses with special fees this rule does not apply. A matriculation fee of \$5.00 is charged at the first registration.

The Athletic Fee constitutes a fund which is collected from all students in the University at College Park for the maintenance of athletics, and the entire amount is turned over to the Athletic Director for disbursement. This fund is audited annually by the State Auditors.

Late Registration Fee. Students who do not complete their registration and classification, including payment of bill, on regular registration days will be required to pay \$3.00 extra on the day following the last registration day, and \$5.00 thereafter. Students who fail to file course cards in the specified periods in May and January are considered late registrants.

Absence Fee. In cases of absence during a period beginning 24 hours before the close of classes for a vacation or holiday and ending 24 hours after the resumption of classes, a student will be penalized by being required to pay a special fee of \$3.00 for each class missed. Unless properly excused, students will be penalized, as in the case of a holiday, for absence from the first meeting of each class at the beginning of the second semester.

Students desiring to be excused from classes before and after a holiday must make application to the Dean at least one week before such holiday. Except under the conditions specified, no excuse for an absence before or after a holiday will be granted.

In exceptional cases, such as sickness or death in the family, application for an excuse must be made within one week after a student returns.

WITHDRAWALS FROM THE UNIVERSITY

Students registering for the dormitories and dining hall must continue for the year, as contracts for faculty and other service and for supplies are made on an annual basis, and fees are fixed on the supposition that students will remain for the entire year.

A student desiring to withdraw from the University must secure the written consent of the parent or guardian, to be attached to the withdrawal slip, which must be approved by the Dean and presented to the Registrar at

least one week in advance of withdrawal. Charges for full time will be continued against him unless this is done. The withdrawal slip must bear the approval of the President before being presented to the Cashier for refund.

REFUNDS

For withdrawal from the University within five days full refund is made of fixed charges, athletic fee, special fee, and student activities fee, with a deduction of \$5.00 to cover cost of registration. All refunds for board, lodging, and laundry are pro-rated.

After five days, and until November 1, the first semester, or March 10, the second semester, refunds on all charges will be pro-rated, with a deduction of \$5.00 to cover cost of registration.

After November 1, or March 10, refunds are granted for board and laundry only, amounts to be pro-rated.

No refunds are made without the written consent of the student's parent or guardian, except to students who pay their own expenses.

DORMITORY RULES AND REGULATIONS

Room Reservations. All new students desiring to room in the dormitories should request room reservation cards. Men should apply to the Director of Admissions, and women to the Office of the Dean of Women. When the room reservation card is returned, it must be accompanied by a \$5 deposit. This fee will be deducted from the first semester charges when the student registers; if he fails to claim the room, the fee will be forfeited. Reservations by students already at the University may be made at any time during the closing month of the school year. 15

Equipment. Students assigned to dormitories should provide themselves with sufficient single blankets, at least two pairs of sheets, a pillow, pillow cases, towels, a laundry bag, a shoe bag, and a waste paper basket. 5

The individual student must assume responsibility for all dormitory property assigned to him. Any damage done to the property other than that which would result from ordinary wear and tear will be charged to him.

Keys. A deposit of \$1.00 is required for each key. Each student is required to have a key for his room in the dormitory. If a student moves out of the dormitory without notifying the Dormitory Office, his lodging charges will continue until the student's withdrawal becomes official. 6

Men's Dormitories. The Dormitory Office is located in "A" section, Calvert Hall. After the student has been officially admitted, and has paid his bill, he will report to the dormitory office for his key before taking possession of the room. Instructions regarding rules for the dormitories will be given to the students at this time. 2

The students are requested to apply for room keys before 7.00 P. M. on the day they enter.

Room reservations not claimed by freshmen or upperclassmen on the respective registration days will be cancelled. A room will be held by 1

special request until *after classes begin* providing the dormitory office is notified by September 13.

Cleaning service is furnished without charge for all rooms.

All freshmen students, except those who live at home, are required to room in the dormitories ~~and board at the University dining hall.~~

Women's Dormitories. All women students who have made dormitory reservations should report to the dormitory to which they have been assigned. Instructions regarding rules and regulations and any other information desired by the student will be given by head resident on duty.

Off-Campus Housing. Those ~~women~~ students who cannot be given accommodations in the dormitory may live in private homes which have been approved for student occupancy. Information regarding these off-campus houses may be secured through the Office of the Dean of Women.

Personal Baggage. Personal baggage sent via the American Express and marked for the dormitory to which it is to be sent will be delivered there direct. All baggage coming by railway will be deposited at the railway station in College Park, whence it can be secured for a small charge through arrangements at the General Service Department of the University.

DEFINITION OF RESIDENCE AND NON-RESIDENCE

Students who are minors are considered to be resident students, if at the time of their registration their parents* have been residents of this State† for at least one year.

Adult students are considered to be resident students, if at the time of their registration they have been residents of this State† for at least one year; provided such residence has not been acquired while attending any school or college in Maryland.

The status of the residence of a student is determined at the time of his first registration in the University, and may not thereafter be changed by him unless, in the case of a minor, his parents* move to and become legal residents of this State†, by maintaining such residence for at least one full calendar year. However, the right of the student (minor) to change from a non-resident to a resident status must be established by him prior to registration for a semester in any academic year.

MISCELLANEOUS INFORMATION

In case of illness requiring a special nurse or special medical attention, the expense must be borne by the student.

Students not rooming in the dormitories may obtain board and laundry at the University at the same rates as those living in the dormitories.

Day students may get lunches at the University cafeteria or at nearby lunch rooms.

*The term "parents" includes persons who, by reason of death or other unusual circumstances, have been legally constituted the guardians of and stand *in loco parentis* to such minor students.

†Students in the College Park Colleges who are residents of the District of Columbia are charged two-fifths of the non-resident fee charged to other non-residents.

The cost of books and supplies will vary according to the course pursued by the individual student. Books and supplies average about \$35.00 per year.

No diploma will be conferred upon, nor any certificate granted to a student who has not made satisfactory settlement of his account.

EXPENSES AT BALTIMORE

The fees and expenses for the professional schools located in Baltimore will be found in the section of this catalogue pertaining to the several schools in Baltimore.

SCHOLARSHIPS

The University of Maryland offers a limited number of scholarships covering fixed charges to residents of the State of Maryland who are graduates of high schools or preparatory schools.

Since the University of Maryland is interested in encouraging students who show promise, these scholarships are awarded on the basis of a student's contribution to his high school, preparatory school, or University; his scholastic average; special talents; and evidence of leadership.

STUDENT EMPLOYMENT

A considerable number of students earn some money through employment while in attendance at the University. No student should expect, however, to earn enough to pay all of his expenses. The amounts vary, but some earn from one-fourth to three-fourths of all the required funds.

Generally the first year is the hardest for those desiring employment. After one has demonstrated that he is worthy and capable, there is much less difficulty in finding work.

During the past three and a half years, through the National Youth Administration, the University has been enabled to offer needy students a limited amount of work on special projects, the remuneration for which averages about \$13 monthly. It is not known how long the Government will continue to extend this aid. Applications for N. Y. A. employment should be made to the Chairman of the Student Life Committee.

The University assumes no responsibility in connection with employment. It does, however, maintain a bureau to aid needy students. The nearby towns and the University are canvassed, and a list of available positions is placed at the disposal of the students. Applications should be made for this work to the Employment Service.

HONORS AND AWARDS

SCHOLARSHIP HONORS AND AWARDS

Scholarship Honors. Final honors for excellence in scholarship are awarded to one-fifth of the graduating class in each college. *First honors* are awarded to the upper half of this group; *second honors* to the lower half. To be eligible for honors, at least two years of resident work are required.

The Goddard Medal. The James Douglas Goddard Memorial Medal is awarded annually to the man from Prince George's County who makes the highest average in his studies and who at the same time embodies the most manly attributes. The medal is given by Mrs. Anne K. Goddard James, of Washington, D. C.

Sigma Phi Sigma Medal. The Delta Chapter of Sigma Phi Sigma Fraternity offers annually a gold medal to the freshman who makes the highest scholastic average during the first semester.

Alpha Zeta Medal. The Honorary Agricultural Fraternity of Alpha Zeta awards annually a medal to the agricultural student in the freshman class who attains the highest average record in academic work. The mere presentation of the medal does not elect the student to the fraternity, but simply indicates recognition of high scholarship.

Dinah Berman Memorial Medal. The Dinah Berman Memorial Medal is awarded annually to the sophomore who has attained the highest scholastic average of his class in the College of Engineering. The medal is given by Benjamin Berman.

award
Mortar Board Cup. This is offered to the woman member of the senior class who has been in attendance at least three full years, and who has made the highest scholastic average.

J.R. D. Award
Delta Delta Delta Medal. This sorority awards a medal annually to the girl who attains the highest average in academic work during the sophomore year.

Class of '26 Honor Key. The Class of 1926 of the School of Business Administration of the University of Maryland at Baltimore offers each year a gold key to the senior graduating from the College of Commerce with the highest average for the entire four year course taken at the University of Maryland.

American Institute of Chemists' Medal. The American Institute of Chemists awards annually a medal and a junior membership to the graduating student, of good character and personality, majoring in chemistry, who shall have attained the highest average grade in this major subject for the entire undergraduate course, exclusive of credit received for the final semester.

Omicron Nu Sorority Medal. This sorority awards a medal annually to the freshman girl who attains the highest scholastic average during the first semester.

Bernard L. Crozier Award. The Maryland Association of Engineers awards a cash prize of \$25.00 annually to the senior in the College of Engineering who, in the opinion of the faculty, has made the greatest improvement in scholarship during his stay at the University.

CITIZENSHIP AWARDS

Citizenship Prize for Men. An award is presented annually by Dr. H. C. Byrd, a graduate of the Class of 1908, to the member of the senior class who, during his collegiate career, has most nearly typified the model citizen, and has done most for the general advancement of the interests of the University.

Citizenship Prize for Women. The Citizenship Prize is offered by Mrs. Albert F. Woods, wife of a former president of the University of Maryland, to the woman member of the senior class who, during her collegiate career, has most nearly typified the model citizen, and has done most for the general advancement of the interests of the University.

MILITARY AWARDS

The Governor's Cup. This is offered each year by His Excellency, the Governor of Maryland, to the best drilled company.

Class of '99 Gold Medal. The class of 1899 offers each year a gold medal to the member of the battalion who proves himself the best drilled soldier.

Company Award. The Reserve Officers' Association, Montgomery County Chapter, awards annually to the captain of the best drilled company of the University, gold second lieutenant's insignia.

The Alumni Cup. The Alumni offer each year a cup to the commanding officer of the best drilled platoon.

Scabbard and Blade Cup. This cup is offered for the commander of the winning platoon.

A Gold Medal is awarded to the member of the Varsity R. O. T. C. Rifle Team who fired the high score of each season.

A Gold Medal is awarded to the member of the Freshman Rifle Team who fired the high score of each season.

Pershing Rifle Medals to each member of the winning squad in the squad drill competition.

Mehring Trophy Rifle Competition Gold Medal to the student firing the highest score in this competition; **A Silver Medal** to the student showing greatest improvement during the year in this competition.

Pershing Rifle Medals to the three best drilled students in Pershing Rifles.

Military Department Award. Gold second lieutenant's insignia to the major of the winning battalion.

ATHLETIC AWARDS

Silvester Watch for Excellence in Athletics. A gold watch is offered annually to "the man who typified the best in college athletics". The watch is given in honor of a former President of the University, R. W. Silvester.

Maryland Ring. The Maryland Ring is offered by Charles L. Linhardt to the Maryland man who is adjudged the best athlete of the year.

PUBLICATIONS AWARDS

Medals are offered in *Diamondback*, *Terrapin*, and *Old Line* work, for the students who have given most efficient and faithful service throughout the year.

LOANS

The Kappa Kappa Gamma Sorority offers annually a Sigma Delta loan of one hundred dollars, without interest, to a woman student registered in the University of Maryland and selected by the Scholarship Committee—the said Committee to be composed of the deans of all Colleges in which girls are registered, including the Dean of Women and the Dean of the Graduate School.

A. A. U. W. Loan. The College Park Branch of the American Association of University Women maintains a fund from which loans are made to women students of junior or senior standing who have been in attendance at the University of Maryland for at least one year. Awards in varying amounts are made on the basis of scholarship, character, and financial need. Applications should be made to the Scholarship Committee of the A. A. U. W. on blanks which may be obtained through the office of the Dean of Women.

In addition to the above loans there are from time to time others that are made available by various women's organizations in the State of Maryland. Information regarding these may be secured upon request from the Office of the Dean of Women.

STUDENT ACTIVITIES

The following description of student activities covers those of the undergraduate divisions of College Park. The description of those in the Baltimore divisions is included in the appropriate chapters in Section II.

GOVERNMENT

Regulation of Student Activities. The association of students in organized bodies, for the purpose of carrying on voluntary student activities in orderly and productive ways, is recognized and encouraged. All organized student activities are under the supervision of the Student Life Committee, subject to the approval of the President. Such organizations are formed only with the consent of the Student Life Committee and the approval of the President. Without such consent and approval no student organization which in any way represents the University before the public, or which purports to be a University organization or an organization of University students, may use the name of the University in connection with its own name, or in connection with its members as students.

Student Government. The Student Government Association consists of the Executive Council, the Women's League, and the Men's League, and operates under its own constitution. Its officers are a President, a Vice-

President, a Secretary-Treasurer, President of Women's League and President of Men's League.

The Women's League handles all affairs concerning women students exclusively. It has the advisory cooperation of the Dean of Women.

The Men's League handles all matters pertaining to men students. It has the advisory cooperation of the Assistant in Student Activities.

The Executive Council performs the executive duties incident to managing student affairs, and works in cooperation with the Student Life Committee.

The Student Life Committee, a faculty committee appointed by the President, keeps in close touch with all activities and conditions, excepting classroom work, that affect the student, and, acting in an advisory capacity, endeavors to improve any unsatisfactory conditions that may exist.

A pamphlet entitled *Academic Regulations*, issued annually and distributed to the students in the fall, contains full information concerning student matters as well as a statement of the rules of the University.

Eligibility to Represent the University. Only students in good standing are eligible to represent the University in extra-curricular contests. In addition, various student organizations have established certain other requirements. To compete in varsity athletics a student must pass at least twenty-four hours of work during a preceding year.

Discipline. In the government of the University, the President and faculty rely chiefly upon the sense of responsibility of the students. The student who pursues his studies diligently, attends classes regularly, lives honorably, and maintains good behavior meets this responsibility. In the interest of the general welfare of the University, those who fail to maintain these standards are asked to withdraw. Students are under the direct supervision of the University only when on the campus, but they are responsible to the University for their conduct wherever they may be.

Fraternities and sororities, as well as all other clubs and organizations recognized by the University, are expected to conduct their social and financial activities in accordance with the rules of good conduct and upon sound business principles. Where such rules and principles are observed, individual members will profit by the experience of the whole group, and thereby become better fitted for their life's work after graduation. Rules governing the different activities will be found in the list of Academic Regulations.

FRATERNITIES, SOCIETIES, AND CLUBS

Honorary Fraternities. Honorary fraternities and societies in the University at College Park are organized to uphold scholastic and cultural standards in their respective fields. These are Phi Kappa Phi, a national honorary fraternity open to honor students, both men and women, in all branches of learning; Sigma Xi, an honorary scientific fraternity; Alpha Zeta, a national honorary agriculture fraternity recognizing scholarship and student leadership; Tau Beta Pi, a national honorary engineering fraternity; Omicron Delta Kappa, men's national honor society, recognizing

conspicuous attainment in non-curricular activities and general leadership; Mortar Board, the national senior honor society for women recognizing service, leadership, and scholarship; Alpha Chi Sigma, a national honorary chemical fraternity; Scabbard and Blade, a national military society; Pershing Rifles, a national military society for basic course R. O. T. C. students; Pi Delta Epsilon, a national journalistic fraternity; Alpha Lambda Delta, a national freshman women's scholastic society; Omicron Nu, a national home economics society; Alpha Psi Omega, a national dramatic society; and Beta Alpha Psi, national accounting honorary; and Pi Sigma Alpha, honorary political science fraternity.

Fraternities and Sororities. There are fourteen national fraternities, six national sororities, and three local sororities at College Park. These in the order of their establishment at the University are Kappa Alpha, Sigma Phi Sigma, Sigma Nu, Phi Sigma Kappa, Delta Sigma Phi, Alpha Gamma Rho, Theta Chi, Phi Alpha, Tau Epsilon Phi, Alpha Tau Omega, Phi Delta Theta, Lambda Chi Alpha, Alpha Lambda Tau, and Sigma Alpha Mu, national fraternities; and Alpha Omicron Pi, Kappa Delta, Kappa Kappa Gamma, Delta Delta Delta, Alpha Xi Delta, and Phi Sigma Sigma, national sororities; and Alpha Sigma, Alpha Delta, and Kappa Alpha Sigma, local sororities.

Clubs and Societies. Many clubs and societies, with literary, scientific, social and other special objectives, are maintained in the University. Some of these are purely student organizations; others are conducted jointly by students and members of the faculty. The list is as follows: Agricultural Council, Authorship Club, Bacteriology Society, Engineering Council, Horticulture Club, Live Stock Club, Calvert Debate Club, Women's Athletic Association, Footlight Club, Rossbourg Club, American Society of Mechanical Engineers, American Society of Civil Engineers, American Institute of Electrical Engineers, Chess Club, Swimming Club, International Relations Club, Opera Club, Radio Club, Camera Club, Terrapin Trail Club, Student Grange, Agricultural Economics Club, Future Farmers of America, Riding Club, Collegiate Chamber of Commerce, Der Deutsche Vercin, Spanish Club, and Le Cercle Francaise.

RELIGIOUS INFLUENCES

Staff. The University recognizes its responsibility for the welfare of the students not solely in their intellectual growth, but as human personalities whose development along all lines, including the moral and religious, is included in the educational process. Pastors representing the major denominational bodies are officially appointed by the Churches for work with the students of their respective faiths. Each of the Student Pastors also serves a local church of his denomination, which the students are urged to attend.

Committee on Religious Affairs and Social Service. A faculty committee on Religious Affairs and Social Service has as its principal function the stimulation of religious thought and activity on the campus. It brings noted speakers on religious subjects to the campus from time to time. The committee coöperates with the student pastors in visiting the students, and

assists the student denominational clubs in every way that it can. Opportunities are provided for students to consult with pastors representing the denominations of their choice.

While there is no attempt to interfere with anyone's religious beliefs, the importance of religion is recognized officially and religious activities are encouraged.

Denominational Clubs. Several religious clubs, each representing a denominational group, have been organized among the students for their mutual benefit and to undertake certain types of Christian service. This year the list includes the Baptist Club, the Episcopal Club, the Lutheran Club, the Newman Club, the Methodist Club, and the Presbyterian Club. These clubs meet monthly or semi-monthly for worship and discussion, and occasionally for social purposes. A pastor or a member of the faculty serves as adviser. Evensong is held every Sunday evening under the auspices of the various denominational clubs. A local Y. W. C. A. provides a variety of activities and services on a non-denominational basis.

STUDENT PUBLICATIONS

Four student publications are conducted under the supervision of the Faculty Committee on Student Publications.

The Diamondback, a semi-weekly, six-to-eight-page newspaper, is published by the students. This publication summarizes the University news, and provides a medium of expression for the discussion of matters of interest to the students and the faculty.

The Terrapin is the student annual published by the Junior Class. It is a reflection of student activities, serving to commemorate the principal events of the college year.

The Old Line is a monthly magazine issued by the students containing short stories, cartoons, humorous material, poetry, and features of general interest.

The "M" Book is a handbook issued each September by the Student Government Association for the benefit of incoming students to acquaint them with general University life.

ALUMNI

The alumni are organized into several units, which elect representatives to the Alumni Council, an incorporated body which manages all general alumni affairs. Different alumni units represent the School of Medicine, the School of Pharmacy, the School of Dentistry, the School of Law, and the School of Nursing, while the group of colleges at College Park are represented by one unit. The College Park unit is governed by a board made up of representatives of the various colleges located at College Park.

The Alumni Council consists of elected representatives from the several units, with a membership of twenty-four. Each alumni unit in Baltimore elects two representatives to the Council; the alumni representing the College Park group of colleges elect twelve representatives.

SECTION II

Administrative Divisions

COLLEGE OF AGRICULTURE

T. B. SYMONS, *Acting Dean and Director of Extension.*

J. E. METZGER, *Acting Director, Experiment Station.*

H. F. COTTERMAN, *Assistant Dean.*

The Agricultural College is the administrative unit of the University devoted especially to the agricultural industries and life of the State. Its four principal functions are as follows: (1) Resident Instruction, the training of young men and women for agricultural and related occupations; (2) Research, the conducting of systematic investigations on projects of importance to agricultural interests; (3) Extension, the rendering of assistance in the solution of farm and home problems in their natural setting; and (4) Regulatory, the enforcement of those standards and control measures in agriculture which are deemed necessary for the common good.

Resident Instruction

The courses in resident instruction are designed to provide trained personnel for agricultural and allied industries. These offerings aim to fit students for one or more of the many fields of activity affording employment to persons with special kinds of training. Education of students in fundamentals receives special attention. The fourteen professional curricula of the College are arranged with a view to correlating technical work with associated sciences and cultural subjects. Accordingly, young men and women are given a basic general education while they are being instructed in the various branches of agriculture.

The College provides education for those who wish to engage in general farming, live stock production, some type of dairying, poultry husbandry, fruit or vegetable growing, floriculture or ornamental horticulture, field crop production, or in the highly specialized activities connected with these industries. It prepares men to serve as farm managers, for responsible positions as teachers in agricultural colleges or in departments of vocational agriculture in high schools, or as investigators in experiment stations, for extension work, for regulatory activities, for service in the United States Department of Agriculture, and for positions with commercial concerns related to agriculture. Its curricula in Bacteriology, Botany, Entomology, Food Technology, Genetics, Statistics, and Soil Technology offer rich opportunities to the student with a scientific bent of mind, and lead to positions with many ramifications in teaching, research, extension, and regulatory work.

Research

Through research of the Experiment Station, the frontiers of knowledge relating to agriculture and the fundamental sciences underlying it are constantly being extended and solutions for important problems are being found. Research projects in many fields are in progress. Students taking courses in agriculture from instructors who devote part time to research or are closely associated with it are kept in close touch with the latest discoveries and developments in the investigations under way. The findings of the Experiment Station thus provide a real source of information for use in classrooms, and make possible a virility and exactness in instruction valuable in the extreme. The authority of scientific investigation is constantly before the student.

Extension

Constant contact of the Extension Service with the problems of farmers and their families in all parts of the State through its county agents, home demonstration agents, and specialists brings additional life to resident instruction in the College of Agriculture. This Service operates in two ways: Problems confronting rural people are brought to the attention of research workers and the instructional staff, and results of research are taken to farmers and their families in their home communities through practical demonstrations. Hence the problems of the people of the State contribute to the strength of the College of Agriculture, and the College helps them in the improvement of agriculture and rural life. Instruction is vitalized through participation in or association with extension activities.

Regulatory

Through their Regulatory functions, certain trained workers in the College of Agriculture are constantly dealing with the actual problems associated with the improvement and maintenance of the standards of farm products and animals. Regulatory and control work extends over a wide range of activities and is concerned with reducing the losses due to insect pests and diseases; preventing and controlling serious outbreaks of diseases and pests of animals and plants; analyzing fertilizers, feed, and limes for guaranteed quality; and providing more reliable seeds for farm planting. These fields constitute an important part of agricultural education, as standardization and education go hand in hand in the development of an industry. Direct contact on the part of professors in their respective departments with the problems and methods involved makes for effective instruction.

Coordination of Agricultural Work

The strength of the College of Agriculture of the University of Maryland lies in the close coordination of the instructional, research, extension, and regulatory functions within the individual departments, between the several departments, and in the institution as a whole. Those who give instruction to students are closely associated with the research, extension,

and regulatory work being carried on in their respective lines, and, in many cases, devote a portion of their time to one or more of these types of activities. Close coordination of these four types of work enables the University to support a stronger faculty in the College of Agriculture, and affords a higher degree of specialization than would otherwise be possible. It insures instructors an opportunity to be always informed on the latest results of research, and to be constantly in touch with current trends and problems that are revealed in extension and regulatory activities. Heads of departments hold staff conferences to this end, so that the student at all times is as close to the developments in the frontiers of the several fields of knowledge as it is possible for organization to put him.

Advisory Councils

In order that the work of the College shall be responsive to agricultural interests and shall adequately meet the needs of the several agricultural industries in the State, and that the courses of instruction shall at all times be made most helpful for students who pursue them, Advisory Councils have been constituted in the major industries of agriculture. These Councils are composed of leaders in the respective lines of agriculture in Maryland, and the instructional staff of the College of Agriculture has the benefit of their counsel and advice at regular intervals. By this means the College, the industries, and the students are kept abreast of developments.

Facilities and Equipment

In addition to the buildings, laboratories, libraries, and equipment for effective instruction in the related basic sciences and in the cultural subjects, the University of Maryland is provided with excellent facilities for research and instruction in agriculture. Farm lands, totaling more than 1200 acres, are owned and operated for instructional and investigational purposes. One of the most complete and modern plants for dairy and animal husbandry work in the country, together with herds of the principal breeds of dairy cattle and livestock, provide facilities and materials for instruction and research in these industries. Excellent laboratory and field facilities are available in the Agronomy Department for breeding and selection in farm crops and for soils research. The Poultry Department has a building for laboratories and classrooms, a plant comprising thirty-four acres, and flocks of all the important breeds of poultry. The Horticulture Department is housed in a separate building, and has ample orchards and gardens for its various lines of work.

Departments

The College of Agriculture includes the following departments: Agricultural Economics and Farm Management; Agricultural Education and Rural Life; Agricultural Engineering; Agronomy (including Crops and Soils); Animal and Dairy Husbandry; Bacteriology; Botany (including Plant Pathology, Plant Physiology, and Bio-chemistry); Entomology (including Bee Culture); Genetics and Statistics; Horticulture (including Pomology,

Vegetable Gardening, Landscape Gardening, and Floriculture); Poultry Husbandry; Veterinary Science.

Admission

The requirements for admission are discussed under Entrance, in Section I.

Requirements for Graduation

A minimum of one hundred and twenty-eight semester hours is required for graduation. The detailed requirements for each department are included in the discussion of Curricula in Agriculture.

Farm and Laboratory Practice

The head of each department will help to make available opportunities for practical or technical experience along his major line of study for each student whose major is in that department and who is in need of such experience. For inexperienced students in many departments this need may be met by one or more summers spent on a farm.

Student Organizations

Students find opportunity for varied expression and growth in the several voluntary organizations sponsored by the College. These organizations are as follows: Student Grange, Livestock Club, Future Farmers of America, Bacteriological Society, Alpha Zeta, Agricultural Economics Club, and the Agricultural Student Council.

Membership in these organizations is voluntary, and no college credits are given for work done in them; yet much of the training obtained is fully as valuable as that acquired from regularly prescribed courses.

The Student Grange represents the Great National Farmers' fraternity of the Order of Patrons of Husbandry, and emphasizes training for rural leadership. It sponsors much deputation work in local granges throughout the State. The Livestock Club conducts the Students' Fitting and Showing Contest held on the campus in the Spring. The Future Farmers of America foster interest in vocational education, and the Collegiate Chapter serves as host Chapter in connection with high school judging contests held at the University. The Bacteriological organization is representative of a national group with chapters in many institutions. The Agricultural Economics group conducts special studies in the field of Agricultural Economics. All these organizations have regular meetings, arrange special programs, and contribute to the extra-curricular life of students.

Alpha Zeta—National Agricultural Honor Fraternity

Membership in this fraternity is chosen from students in the College of Agriculture who have displayed agricultural motive and executive ability. This organization fosters scholarship, and to that end awards a gold medal to the member of the freshman class in agriculture who makes the highest record during the year.

Agricultural Student Council

The Agricultural Student Council is a delegate body made up of two representatives from each of the above organizations. Its purpose is to coordinate activities of students in agriculture, and to promote work which is beneficial to the College of Agriculture. It is the organization that is representative of the agricultural student body as a whole.

CURRICULA IN AGRICULTURE

Curricula within the College of Agriculture divide into three general classes: Technical, Scientific, and Special.

(1) Technical curricula are designed to prepare students for farming as owners, tenants, managers, or specialists; for positions as county agricultural agents, or teachers of agriculture in high schools; as executives, salesmen, or other employees in commercial businesses with close agricultural contact and point of view.

(2) Scientific curricula are designed to prepare students for positions as technicians, teachers, or investigators. These positions are usually in the various scientific and educational departments, or bureaus of the Federal, State, or Municipal governments; in the various schools or experiment stations; or in the laboratories of private corporations.

(3) Courses of study may be arranged for any who desire to return to the farm after one or more years of training in practical agricultural subjects. (For details see Special Students in Agriculture, page 99.)

Student Advisers

Each student in the College of Agriculture is assigned to an adviser from the faculty. Advisers are of two kinds—departmental and general. Departmental advisers consist of heads of departments or persons selected by them to advise students with curricula in their respective departments. General advisers are selected for students who have no definite choice of curriculum in mind, or who wish to pursue the general curriculum in agriculture.

Cases of students with poor records are referred to the Admission, Guidance, and Adjustment Committee, for review and advice.

Electives

The electives in the suggested curricula which follow afford opportunity for those who so desire to supplement major and minor fields of study or to add to their general training.

With the advice and consent of those in charge of his registration, a student may make such modifications in his curriculum as are deemed advisable to meet the requirements of his particular need.

Students wishing to take Advanced R. O. T. C. may, upon consultation with the Department Head and with the consent of the Dean, substitute this subject either as an elective or for certain requirements in junior and senior years.

Freshman Year

The program of the freshman year in the College of Agriculture is common to all curricula of the College. Its purpose is to afford the student an opportunity to lay a broad foundation in subjects basic to agriculture and the related sciences, to articulate beginning work in college with that pursued in high or preparatory schools, to provide opportunity for wise choice of programs in succeeding years, and to make it possible for a student before the end of the year to change from one curriculum to another, or from the College of Agriculture to the curriculum in some other college of the University with little or no loss of credit.

Students entering the freshman year with a definite choice of curriculum in mind are sent immediately to departmental advisers for counsel as to the wisest selection of freshman electives from the standpoint of their special interests and their probable future programs. Students entering the freshman year with no definite curriculum in mind, or who are undecided, are assigned to general advisers, who assist with the choice of freshman electives and during the course of the year acquaint them with the opportunities in the upper curricula in the College of Agriculture and in the other divisions of the University. If by the close of the freshman year a student makes no definite choice of a specialized curriculum, he continues under the guidance of his general adviser and at the beginning of the sophomore year enters Agriculture (General Curriculum).

Curriculum for Freshman Year

	Semester	
	I	II
General Chemistry (Chem. 1y).....	4	4
Survey and Composition I (Eng. 1y).....	3	3
General Botany (Bot. 1f).....	4	—
General Zoology (Zool. 1s).....	—	4
Reading and Speaking (Speech 1y).....	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or Phys. Ed. 2y and 4y).....	1	1
Freshman Lectures.....	—	—
Elect one of the following:		
Modern Language (French or German).....	3	3
*Mathematics (Math. 8f or 11f and 10s).....	3	3
Elementary Physics (Phys. 3y).....	3	3
Agricultural Industry and Resources (A. E. 1f) and Farm Organization (A. E. 2s).....	3	3

*Students who expect to pursue the curriculum in Statistics must be prepared to elect Math. 21f and 22s.

AGRICULTURE

(General Curriculum)

Students who desire to pursue a general course in Agriculture should enter the following curriculum. It is designed for those seeking a general, rather than a specialized, knowledge of the subject.

	Semester	
	I	II
<i>Sophomore Year</i>		
Survey and Composition (Eng. 2f, 3s).....	3	3
Geology (Geol. 1f).....	3	—
Soils and Fertilizers (Soils 1s).....	—	3
Cereal Crop and Forage Crop Production (Agron. 1f and 2s).....	3	3
General Animal Husbandry (A. H. 2s).....	—	2
Fundamentals of Dairying (D. H. 1f).....	3	—
Fundamentals of Economics (Econ. 57s).....	—	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
Electives	2	—
	16	16
<i>Junior Year</i>		
Farm Machinery (Agr. Engr. 101f).....	3	—
Gas Engines, Tractors, and Automobiles (Agr. Engr. 102s).....	—	3
Fundamentals of Dairying (D. H. 2s).....	—	3
Farm Economics (A. E. 100f).....	3	—
Marketing of Farm Products (A. E. 102s).....	—	3
General Horticulture (Hort. 1f, 2s).....	3	3
Poultry Production (P. H. 1f).....	3	—
Poultry Management (P. H. 2s).....	—	3
Advanced Public Speaking (Speech 3f, 4s).....	2	2
Electives	2	—
	16	17
<i>Senior Year</i>		
Farm Management (A. E. 108f).....	3	—
Analysis of Farm Business (A. E. 107s).....	—	3
Feeds and Feeding (A. H. 102f).....	3	—
Principles of Breeding (A. H. 103s).....	—	3
Electives	9	10
	15	16

AGRICULTURAL EDUCATION AND RURAL LIFE

The objectives of the curricula in Agricultural Education are the teaching of secondary vocational agriculture, the work of county agents, and allied lines of the rural education service.

Curriculum A is designed for persons who have had no vocational agriculture in high school or less than two years of such instruction. Curriculum B is designed for persons who have had two or more years of thoroughgoing instruction in secondary agriculture of the type offered in Maryland high schools. Curriculum B relieves the student of the necessity of pursuing beginning agriculture courses in the first two years of his college course, permits him to carry general courses in lieu of those displaced by his vocational program in high school, and offers him an opportunity to lay a broad foundation for the advanced work in agriculture of the last two college years.

In addition to the regular entrance requirements of the University, involving graduation from a standard four-year high school, students electing the agricultural education curricula must present evidence of having acquired adequate farm experience after reaching the age of fourteen years.

Students with high averages upon petition may be relieved of certain requirements in these curricula, when evidence is presented showing that either through experience or through previous training the prescription is non-essential; or they may be allowed to carry an additional load.

Curriculum A.

	Semester	
	I	II
<i>Sophomore Year</i>		
Diseases of Plants (Plt. Path. 1f).....	3	—
Introductory Entomology (Ent. 1s).....	—	3
Cereal Crop and Forage Crop Production (Agron. 1f and 2s).....	3	3
Geology (Geol. 1f).....	3	—
Soils and Fertilizers (Soils 1s).....	—	3
Fundamentals of Dairying (D. H. 1f and 2s).....	3	3
General Horticulture (Hort. 1f).....	3	—
Fundamentals of Economics (Econ. 57s).....	—	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
	17	17

	Semester	
	I	II
<i>Junior Year</i>		
Farm Machinery (Agr. Engr. 101f).....	3	—
Farm Economics (A. E. 100f).....	3	—
Marketing of Farm Products (A. E. 102s).....	—	3
Poultry Production (P. H. 1f).....	3	—
Poultry Management (P. H. 2s).....	—	3
General Animal Husbandry (A. H. 2s).....	—	2
General Horticulture (Hort. 2s).....	—	3
General Shop (Ind. Ed. 167y).....	1	1
Advanced Public Speaking (Speech 3f, 4s).....	2	2
Educational Psychology (Psych. 10f).....	3	—
Observation and the Analysis of Teaching for Agricultural Students (R. Ed. 107s).....	—	3
	—	—
	15	17
<i>Senior Year</i>		
Farm Management (A. E. 108f).....	3	—
Feeds and Feeding (A. H. 102f).....	3	—
Gas Engines, Tractors, and Automobiles (Agr. Engr. 102s).....	—	3
Farm Practicums and Demonstrations (R. Ed. 101f, 102s).....	1	1
Principles of Secondary Education (Ed. 103s).....	—	3
Teaching Secondary Vocational Agriculture (R. Ed. 109f).....	3	—
Rural Life and Education (R. Ed. 110s).....	—	3
Departmental Organization and Administration (R. Ed. 112s).....	—	1
Farm Mechanics (Agr. Engr. 104f).....	1	—
Teaching Farm Mechanics in Secondary Schools (R. Ed. 114s).....	—	1
Practice Teaching (R. Ed. 120 f or s).....	—	2
Electives	5	—
	—	—
	16	14

Curriculum B.

<i>Sophomore Year</i>		
Diseases of Plants (Plt. Path. 1f).....	3	—
General Entomology (Ent. 1s).....	—	3
Geology (Geol. 1f).....	3	—
Soils and Fertilizers (Soils 1s).....	—	3
General Horticulture (Hort. 1f, 2s).....	3	3
Fundamentals of Dairying (D. H. 1f).....	3	—
Fundamentals of Economics (Econ. 57s).....	—	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
*Electives	3	3
	—	—
	17	17

*If Elementary Physics (Phys. 3y) is not elected in the freshman year, it must be elected in the sophomore year.

	Semester	
	I	II
<i>Junior Year</i>		
Farm Machinery (Agr. Engr. 101f).....	3	—
General Shop (Ind. Ed. 167y).....	1	1
Advanced Public Speaking (Speech 3f, 4s).....	2	2
Educational Psychology (Psych. 10f).....	3	—
Observation and the Analysis of Teaching for Agricultural Students (R. Ed. 107s).....	—	3
Electives	8	11
	—	—
	17	17
<i>Senior Year</i>		
Farm Management (A. E. 108f).....	3	—
Farm Practicums and Demonstrations (R. Ed. 101f, 102s).....	1	1
Gas Engines, Tractors, and Automobiles (Agr. Engr. 102s).....	—	3
Principles of Secondary Education (Ed. 103s).....	—	3
Teaching Secondary Vocational Agriculture (R. Ed. 109f).....	3	—
Rural Life and Education (R. Ed. 110s).....	—	3
Departmental Organization and Administration (R. Ed. 112s).....	—	1
Farm Mechanics (Agr. Engr. 104f).....	1	—
Teaching Farm Mechanics in Secondary Schools (R. Ed. 114s).....	—	1
Practice Teaching (R. Ed. 120s).....	—	2
Electives	6	—
	—	—
	14	14

Electives in Curriculum B to be as follows:

Advanced Animal and Dairy Husbandry.....	6 hours
Advanced Agricultural Economics, Farm Management.....	6 hours
Advanced Agronomy.....	6 hours
Advanced Poultry.....	6 hours
Subjects of Special Interest.....	8 hours

AGRICULTURAL ENGINEERING

The department of Agricultural Engineering offers to students of agriculture training in those agricultural subjects which are based upon engineering principles. These subjects may be grouped under three heads: farm machinery, farm buildings, and farm drainage.

The modern tendency in farming is to reduce production costs by the use of farm machinery units of efficient size and design. In many cases horses are being replaced by tractors. Trucks, automobiles, and stationary engines are found on almost all farms. It is highly advisable that the student of any branch of agriculture have a working knowledge of the design, adjustments, and repair of these machines.

More than one-fourth of the total value of Maryland farms is represented by the buildings. The study of the design of various buildings, from the standpoint of economy, sanitation, efficiency, and appearance, is, therefore, important.

Studies included in the study of drainage are as follows: the principles of tile drainage, the laying out and construction of tile drain systems, the use of open ditches, and Maryland drainage laws.

AGRONOMY

In the Department of Agronomy are grouped the courses in farm crops, soils, and plant breeding.

The curriculum in farm crops aims to give the student the fundamental principles of crop production. Special attempt is made to adapt the work to the young man who wishes to apply scientific principles of field crop culture and improvement on the farm. At the same time enough freedom is given the student in the way of electives so that he may register for subjects which might go along with the growing of crops on his particular farm. A student graduating from the course in agronomy should be well fitted for general farming, for the production of improved seeds, for employment with commercial firms, for investigational work in the State or Federal Experiment Stations, or for county agent work.

The division of soils gives instruction in the physics, chemistry, and biology of the soil, the courses being designed to equip the future farmer with a complete knowledge of his soil and also to give adequate training to students who desire to specialize in soils. Those who are preparing to take up research or teaching are expected to take graduate work in addition to the regular undergraduate courses that are offered. The division possesses the necessary equipment and facilities for the instruction in these subjects, and in addition affords opportunities for the student to come in contact with the research at the Agricultural Experiment Station, especially in the pot culture laboratories, and on the experimental fields at the station and in other parts of the State.

Graduate students will find unusual opportunities to fit themselves to teach soils in agricultural colleges, to conduct research in experiment stations, and to carry on work with the Bureau of Plant Industry and the Bureau of Chemistry and Soils, United States Department of Agriculture.

Curriculum

	Semester	
	I	II
<i>Sophomore Year</i>		
Cereal and Forage Crops (Agron. 1f and 2s).....	3	3
Geology (Geol. 1f).....	3	—
Soils and Fertilizers (Soils 1s).....	—	3-5
Elements of Organic Chemistry (Chem. 12Ay).....	4	2
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
Select from following:		
Elementary Mathematical Analysis (Math. 24y).....	2	2
General Physics (Phys. 1y).....	4	4
Diseases of Plants (Plt. Path. 1f).....	4	—
Agriculture (Any course under 100).....	3	3
	—	—
	14-16	14-16

Crops Division

Junior Year

Genetics (Gen. 101f).....	3	—
Technology of Crop Quality (Agron. 102f).....	2 or 3	—
General Bacteriology (Bact. 1f).....	4	—
Expository Writing (Eng. 5f, 6s).....	2	2
Plant Physiology (Plt. Phys. 101f).....	4	—
Fundamentals of Economics (Econ. 57f).....	—	3
Electives	1	11
	—	—
	16	16

Senior Year

Crop Breeding (Agron. 103f).....	2	—
Advanced Genetics (Gen. 102s).....	—	2
Farm Economics (A. E. 100f).....	3	—
Methods of Crop and Soil Investigations (Agron. 121 s).....	—	2
Selected Crop Studies (Agron. 104f and s).....	1	4
Soil Geography (Soils 103f).....	3	—
Farm Machinery (Agr. Engr. 101f).....	3	—
Farm Drainage (Agr. Engr. 107 s).....	—	2
Farm Forestry (For. 1 s).....	—	3
Farm Management (A. E. 108f).....	3	—
Electives	1	3
	—	—
	16	16

Soils Division

Junior Year

Expository Writing (Eng. 5f, 6s).....	2	2
Fundamentals of Economics (Econ. 57s).....	—	3
General Bacteriology (Bact. 1f).....	4	—
Soils and Fertilizers (Soils 1f).....	5	—
Soil Management (Soils 102 s).....	—	3
Plant Physiology (Plt. Phys. 101f).....	4	—
Electives	1	8
	—	—
	16	16

Senior Year

Farm Management (A. E. 108f).....	4	—
Methods of Crop and Soil Investigations (Agron. 121 s).....	—	2
Soil Geography (Soils 103f).....	3	—
Farm Drainage (Agr. Engr. 107s).....	—	2
Soil Conservation (Soils 120 s).....	—	3
Electives	9	9
	—	—
	16	16

ANIMAL AND DAIRY HUSBANDRY

Modern dairy cattle, horse, beef cattle, and sheep barns, a judging pavilion and classroom have just been completed on a site adjacent to the University campus. These up-to-date facilities, with choice herds and flocks, together with improvements that are being made in the dairy manufacturing plant, add materially to the equipment for instruction and research in animal and dairy husbandry.

The Department of Animal and Dairy Husbandry offers thorough instruction in the selection, breeding, feeding, management, and marketing of dairy cattle, horses, beef cattle, sheep, and swine, and in the processing and sale of milk and milk products, meat, and wool.

The curriculum in animal and dairy husbandry permits specialization and allows considerable latitude in the election of courses in other departments. Courses in accounting, soil fertility and crops, agricultural economics and marketing, bacteriology, botany, agricultural education, law, entomology, genetics and statistics, farm buildings and drainage, horticulture, physiological chemistry, physics, poultry, and veterinary medicine are among the supporting courses most strongly recommended for majors in animal and dairy husbandry.

Students satisfactorily majoring in animal and dairy husbandry are well equipped for general livestock and dairy cattle farming, to become County Agricultural Agents, for employment by commercial concerns, and for instructional and investigational work in Colleges and Experiment Stations.

Students who wish to enter teaching or research work in agricultural colleges or the U. S. Department of Agriculture are urged to continue their studies as graduate students in some specific phase of research work in the Experiment Station, supported by the proper courses.

Animal Husbandry

The following curriculum for the sophomore, junior, and senior years is suggested as a guide for students wishing to major in the animal husbandry field. Electives in dairy husbandry and veterinary science will be found helpful.

Curriculum	Semester	
	I	II
<i>Sophomore Year</i>		
Elements of Organic Chemistry (Chem. 12 Ay and 12 By).....	3	3
General Animal Husbandry (A. H. 2s).....	—	2
Fundamentals of Dairying (D. H. 2s).....	—	3
General Bacteriology (Bact. 1f).....	4	—
Fundamentals of Economics (Econ. 57s).....	—	3
Geology (Geol. 1f).....	3	—
Cereal Crop Production (Agron. 1f).....	3	—
Forage Crop Production (Agron. 2s).....	—	3
R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
Electives	2	—
	17	16

	Semester	
	I	II
<i>Junior Year</i>		
Breeds of Horses and Beef Cattle (A. H. 100f).....	2	—
Breeds of Sheep and Swine (A. H. 101s).....	—	2
Feeds and Feeding (A. H. 102f).....	3	—
Principles of Breeding (A. H. 103s).....	—	3
Genetics (Gen. 101f).....	3	—
Livestock Markets and Marketing (A. H. 111f).....	2	—
Livestock Management (A. H. 105s).....	—	2
Livestock Judging (A. H. 107s).....	—	2
Electives	5	7
	15	16
<i>Senior Year</i>		
Beef Cattle and Horse Production (A. H. 109f).....	3	—
Sheep and Swine Production (A. H. 110s).....	—	3
Livestock Markets and Marketing (A. H. 111f).....	2	—
Animal Nutrition (A. H. 113f).....	3	—
General Physiological Chemistry (Chem. 108s).....	—	4
Farm Machinery (Agr. Engr. 101f).....	3	—
Electives	5	9
	16	16

Dairy Husbandry

The Department of Dairy Husbandry offers two major lines of work: dairy production and dairy manufacturing. The dairy production option is organized to meet the requirements of students wishing to major in dairy cattle farming and in the production and sale of market milk.

Dairy Production

The following curriculum for the sophomore, junior, and senior years is suggested as a guide for students majoring in dairy production. Some electives from dairy manufacturing and veterinary science will be helpful.

Curriculum	Semester	
	I	II
<i>Sophomore Year</i>		
Elements of Organic Chemistry (Chem. 12 Ay and 12 By).....	3	3
Fundamentals of Dairying (D. H. 1f and 2s).....	3	3
General Bacteriology (Bact. 1f).....	4	—
Geology (Geol. 1f).....	3	—
Soils and Fertilizers (Soils 1s).....	—	5
Forage Crop Production (Agron. 2s).....	—	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (3y or 6y and 8y).....	2	2
	15	16

	Semester	
	I	II
<i>Junior Year</i>		
Expository Writing (Eng. 5f, 6s).....	2	2
Fundamentals of Economics (Econ. 57s).....	—	3
Genetics (Gen. 101f).....	3	—
Principles of Breeding (A. H. 103s).....	—	3
Feeds and Feeding (A. H. 102f).....	3	—
Dairy Cattle Management (D. H. 106f, 107s).....	3	3
Dairy Cattle Judging (D. H. 103s).....	—	2
Comparative Anatomy and Physiology (V. S. 101f).....	3	—
Animal Hygiene (V. S. 102s).....	—	3
History and Geography of Dairying (D. H. 108f).....	2	—
	—	—
	16	16
<i>Senior Year</i>		
Dairy Cattle Feeding and Herd Management (D. H. 101f).....	3	—
Dairy Breeds and Breeding (D. H. 105s).....	—	2
Market Milk (D. H. 113f).....	5	—
Farm Management (A. E. 108f).....	3	—
Animal Nutrition (A. H. 113f).....	3	—
Electives	3	14
	—	—
	17	16

Dairy Manufacturing

The option in dairy manufacturing is designed to meet the particular needs of those interested in the processing and distribution of milk, in dairy plant operation and management, and in the manufacture and sale of butter, cheese, ice cream, and other milk products. The following curriculum for sophomore, junior, and senior years is suggested for students who wish to major in dairy manufacturing. Electives in dairy production, chemistry, and bacteriology will be helpful.

Curriculum

<i>Sophomore Year</i>		
Elements of Organic Chemistry (Chem. 12 Ay and 12 By).....	3	3
Quantitative Analysis (Chem. 4s).....	—	4
General Bacteriology (Bact. 1f).....	4	—
Fundamentals of Dairying (D. H. 1f and 2s).....	3	3
Elementary Physics (Physics 3y).....	3	3
R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
Electives	1	1
	—	—
	16	16

	Semester	
	I	II
<i>Junior Year</i>		
History and Geography of Dairying (D. H. 108f).....	2	—
Milk Bacteriology (Bact. 101f).....	3	—
Dairy Products Bacteriology (Bact. 102s).....	—	3
Fundamentals of Economics (Econ. 57s).....	—	3
Grading Dairy Products (D. H. 115s).....	—	1
Dairy Mechanics (D. H. 116s).....	2	—
Expository Writing (Eng. 5f, 6s).....	2	2
Cheese Making (D. H. 109f).....	3	—
Butter Making (D. H. 110f).....	2	—
Concentrated Milks (D. H. 111s).....	—	2
Ice-Cream Making (D. H. 112s).....	—	3
Electives	2	2
	—	—
	16	16
<i>Senior Year</i>		
Dairy Cattle Feeding and Herd Management 101f).....	3	—
Market Milk (D. H. 113f).....	5	—
Analysis of Dairy Products (D. H. 114s).....	—	3
Dairy Accounting (D. H. 117s).....	—	1
Dairy Plant Experience (D. H. 121f and D. H. 122s).....	2	1
Dairy Literature (D. H. 119f and D. H. 120s).....	1	1
Farm Economics (A. E. 100f).....	3	—
Electives	2	10
	—	—
	16	16

BACTERIOLOGY

This department has been organized with two main purposes in view. The first is to give all students of the University an opportunity to obtain a general knowledge of this basic subject. The second is to prepare students for bacteriological positions (including those of dairy, sanitary, food, and soil bacteriologists; and federal, state, and municipal bacteriologists); and for public health work of various types, research, and industrial positions.

General Bacteriology Curriculum

	Semester	
	I	II
<i>Sophomore Year</i>		
Elements of Organic Chemistry (Chem. 12Ay).....	2	2
Elementary Organic Laboratory (Chem. 12By).....	1	1
German or French.....	3	3
General Bacteriology (Bact. 1f).....	4	—
Pathogenic Bacteriology (Bact. 2s).....	—	4
Expository Writing (Eng. 5f, 6s).....	2	2
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
Electives	3-4	3-4
	—	—
	17-18	17-18

	Semester	
	I	II
<i>Junior Year</i>		
Milk Bacteriology (Bact. 101f).....	4	—
Sanitary Bacteriology (Bact. 112s).....	—	3
Serology (Bact. 115f).....	4	—
Advanced Methods (Bact. 113s).....	—	2
General Physics (Phys. 1y).....	4	4
Electives (Bact.).....	—	2-4
Electives (Other).....	3-5	2-6
	—	—
	15-17	15-17
<i>Senior Year</i>		
Biological Statistics (Stat. 111f).....	2	—
General Physiological Chemistry (Chem. 108s).....	—	4
Journal Club (Bact. 131f, 132s).....	1	1
Electives (Bacteriology).....	5-6	4-2
Electives (Other).....	6-9	6-10
	—	—
	15-17	15-17

Food Technology

This curriculum offers combinations of courses that will equip the student with an unusually broad knowledge of the many aspects involved in the production side of food manufacture. In the curriculum are combined many of the fundamentals of biology, chemistry, and engineering which, when supported by the proper electives and by practical experience, will serve as an excellent background for supervisory work in food factory operation, salesmanship, research in the food industries, etc.

The freshmen will enroll for the regular courses in the common Freshman Year as shown for the College of Agriculture, and will elect Modern Language and College Algebra (Math. 8f) and Analytic Geometry (Math. 10s). Also the course in Reading and Speaking (Speech 1y) may be postponed until the Junior or Senior years.

Curriculum

<i>Sophomore Year</i>		
Elementary Organic Chemistry (Chem. 8Ay and 8By).....	4	4
Elementary Mathematical Analysis (Math. 24y).....	3	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
General Physics (Phys. 1y).....	4	4
Food Microscopy (F. T. 100f).....	2	—
Engineering Drawing (Dr. 1f).....	2	—
General Bacteriology (Bact. 1s).....	—	4
	—	—
	17	17

	Semester	
	I	II
<i>Junior Year</i>		
Quantitative Chemistry (Chem. 4f).....	4	—
Refrigeration.....	—	2
Food Bacteriology (Bact. 111f).....	3	—
Sanitary Bacteriology (Bact. 112s).....	—	3
Physical Chemistry (Chem. 103y).....	3	3
Elements of Chemical Engineering (Chem. Engr. 103y).....	3	3
Elementary Electrical Engineering (E. E. 1s).....	—	3
Electives.....	3-4	2-3
	—	—
	16-17	16-17
<i>Senior Year</i>		
Fundamentals of Economics (Econ. 57f).....	3	—
Industrial Management (O. & M. 121s).....	—	3
Food Analysis (Chem. 115f).....	3	—
Technology Conference (F. T. 130y).....	1	1
Regulatory Control (F. T. 110f).....	1	—
Food Sanitation (F. T. 120s).....	—	2
Advanced Unit Operation (Chem. Engr. 105y).....	5	5
Electives.....	3-4	5-6
	—	—
	16-17	16-17

BOTANY

The Department of Botany offers three major fields of work: general botany and morphology, plant pathology, and plant physiology and ecology. The required courses for the freshman and sophomore years are the same for all students. In the junior and senior years, the student elects botanical courses to suit his particular interests in botanical science. Both the junior and senior years also allow considerable freedom in the election of non-botanical courses, in order to round out a fairly broad cultural education. Through cooperation with the College of Education, students who wish to meet the requirements for the state high school teacher's certificates may elect the necessary work in education.

The curriculum as outlined lays a good foundation for students who wish to pursue graduate work in botanical science in preparation for college teaching and for research in state experiment stations, in the United States Department of Agriculture, and in private research institutions and laboratories.

The curriculum also affords students an opportunity for training for other vocations involving various botanical applications, such as extension work, and positions with seed companies, canning companies, companies making spray materials, and with other commercial concerns.

Curricula

General Botany and Morphology, Physiology, and Pathology

	Semester	
	I	II
<i>Sophomore Year</i>		
Diseases of Plants (Plt. Path. 1f).....	4	—
Local Flora (Bot. 4s).....	—	2
General Botany (Bot. 3s).....	—	4
General Bacteriology (Bact. 1f).....	4	—
College Algebra and Analytic Geometry (Math. 8f or 11f and 10s)	3	3
*Modern Language	3	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
Electives	—	2
	16	16

General Botany and Morphology, and Plant Physiology

<i>Junior Year</i>		
Plant Physiology (Plt. Phys. 101f).....	4	—
General Physics (Phys. 1y).....	4	4
Plant Ecology (Plt. Phys. 102s).....	—	3
Electives	8	9
	16	16

Senior Year

Genetics (Gen. 101f).....	3	—
Methods in Plant Histology (Bot. 107s).....	—	2
Botanical Electives (Maximum).....	5	12
Other Electives (Minimum)	8	2
	16	16

Plant Pathology

<i>Junior Year</i>		
Plant Physiology (Plt. Phys. 101f).....	4	—
General Physics (Phys. 1y).....	4	4
Introductory Entomology (Ent. 1s).....	—	3
Elements of Organic Chemistry (Chem. 12y).....	3	3
Research Methods (Plt. Path. 103s).....	—	2
Electives	6	3
	17	15

*Twelve hours of modern language are required. If it is not begun until the sophomore year, the last six hours will be elected in the junior or senior year.

Senior Year

	Semester	
	I	II
Plant Ecology (Plt. Phys. 102s).....	—	3
Mycology (Bot. 102f).....	4	—
Plant Anatomy (Bot. 101f).....	3	—
Genetics (Gen. 101f).....	3	—
Diseases of Fruits (Plt. Path. 101s) or Diseases of Garden and Field Crops (Plt. Path. 102s).....	—	2
Electives	6	11
	16	16

BIOLOGICAL CHEMISTRY

The objective of the curriculum in Biological Chemistry is the fitting of students for work in agricultural experiment stations, and in soil, fertilizer, and food laboratories.

ENTOMOLOGY

This department is engaged in the teaching of entomology to all agricultural students as a basis for future work in pest control, in the preparation of technically trained entomologists, and in furnishing courses to students in Arts and Sciences and Education.

The success of the farmer and particularly the fruit grower is in large measure dependent upon his knowledge of the methods of preventing or combating the pests that menace his crops. Successful methods of control are emphasized in the economic courses.

The fact that the entomological work of the Experiment Station, the Extension Service, the College of Agriculture, and the office of the State Entomologist are in one administrative unit, enables the student in this department to avail himself of the many advantages accruing therefrom. Advanced students have special advantages in that they may be assigned to work on Station projects already under way. The department takes every advantage of the facilities offered by the Bureau of Entomology of the U. S. Department of Agriculture, the Beltsville Research Center, the National Museum, Smithsonian Institution, various other local laboratories, the libraries in Washington, and the Washington Entomological Society. There is an active Entomological Society composed of the students and staff of the department. A monthly news magazine is published, and there are numerous other profitable projects in which all students may participate. Thus students are given many opportunities of meeting authorities in the various fields of entomology, to observe projects under way, consult collections, and hear addresses on every phase of entomology. Following is the suggested curriculum in entomology. It can be modified to suit individual demand.

Curriculum		Semester	
		I	II
<i>Sophomore Year</i>			
Introductory Entomology (Ent. 1f).....	3	—	—
Insect Morphology (Ent. 2s).....	—	—	3
Elements of Organic Chemistry (Chem. 12y).....	3	—	3
Modern Language (French or German).....	3	—	3
Diseases of Plants (Plt. Path. 1f).....	4	—	—
General Bacteriology (Bact. 1s).....	—	—	4
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	—	2
	15	—	15
<i>Junior Year</i>			
Insect Taxonomy (Ent. 3f).....	3	—	—
Insect Biology (Ent. 5s).....	—	—	3
†Economic Entomology (Ent. 101y).....	2	—	2
Modern Language (French or German).....	3	—	3
General Physics (Phys. 1y).....	4	—	4
Electives	4-5	—	4-5
	16-17	—	16-17
<i>Senior Year</i>			
†Insect Pests of Special Groups (Ent. 104f and s).....	3	—	3
Seminar (Ent. 112y).....	1	—	1
Special Problems (Ent. 110f and s).....	2	—	2
Electives	10-11	—	10-11
	16-17	—	16-17

This curriculum is based on the option of mathematics in the freshman year, which subject should be elected by students wanting a major in entomology. Students electing another course will have to make certain changes in the sequence of some of the required courses.

FARM MANAGEMENT*

The courses in this department are designed to provide fundamental training in the basic economic principles underlying farming. While the curriculum is developed primarily from the viewpoint of farm management, sufficient basic courses in general agricultural economics, marketing, finance, and land economics are included to give the student the foundation needed to meet the production and distribution problems confronting the individual farmer in a progressive rural community.

†Ent. 101y and 104f and s taught in alternate years.

*Students electing the Farm Management curriculum must present evidence of having acquired at least one year of practical farm experience.

Farming is a business, as well as a way of life, and as such demands for its successful conduct the use of business methods; the keeping of farm business records, analyzing the farm business, and of organizing and operating the farm as a business enterprise. It requires not only knowledge of many factors involved in the production of crops and animals, but also administrative ability to coordinate them into the most efficient farm organization. Such knowledge enables the student to perceive the just relationship of the several factors of production and distribution as applicable to local conditions, and to develop an executive and administrative capacity.

Students well trained in farm management are in demand for county agent work, farm bureau work, experiment station or United States Government investigation, and college or secondary school teaching.

Curriculum		Semester	
		I	II
<i>Sophomore Year</i>			
Expository Writing (Eng. 5f, 6s).....	2	—	2
General Mathematics (Math. 20y).....	3	—	3
Fundamentals of Economics (Econ. 57s).....	—	—	3
General Horticulture (Hort. 1f).....	3	—	—
Geology (Geol. 1f).....	3	—	—
Cereal Crop Production (Agron. 1f).....	3	—	—
Soils and Fertilizers (Soils 1s).....	—	—	3
General Animal Husbandry (A. H. 2s).....	—	—	2
Poultry Management (P. H. 2s).....	—	—	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	—	2
	16	—	18
<i>Junior Year</i>			
Farm Economics (A. E. 100f).....	3	—	—
Marketing of Farm Products (A. E. 102s).....	—	—	3
Analysis of the Farm Business (A. E. 107s).....	—	—	3
Feeds and Feeding (A. H. 102f).....	3	—	—
Money and Banking (Finance 53s).....	—	—	3
Farm Machinery (Agr. Engr. 101f).....	3	—	—
Electives	6	—	6
	15	—	15

<i>Senior Year</i>	<i>Semester</i>	
	<i>I</i>	<i>II</i>
Cooperation in Agriculture (A. E. 103f).....	3	—
Farm Management (A. E. 108f).....	3	—
Farm Finance (A. E. 104s).....	—	3
Rural Life and Education (R. Ed. 110s).....	—	3
Biological Statistics (Stat. 111f and 112s).....	2	2
Farm Economics (A. E. 110f).....	3	—
Prices of Farm Products (A. E. 106s).....	—	3
Electives	5	5
	16	16

GENETICS AND STATISTICS

Rapid accumulation of knowledge in the field of genetics has changed the viewpoint of those interested in plant and animal breeding and in eugenics.

The Department of Genetics offers students training in the principles of heredity and presents results of the application of these principles in plant and animal improvement.

Statistics

Curriculum

Teachers and investigators have increasing occasion to interpret statistical data presented by others, as well as to gather and organize original materials.

The Department of Statistics offers students training in the tools and methods employed in statistical description, induction, and design.

<i>Sophomore Year</i>		
Survey and Composition II (Eng. 2f, 3s).....	3	3
Calculus (Math. 23y).....	4	4
German or French.....	3	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3 y or 6 y and 8 y).....	2	2
Electives	4	4
	16	16

<i>Junior Year</i>		
Higher Algebra (Math. 141f).....	2	—
Advanced Calculus (Math. 143f).....	2	—
Theory of Probabilities and Least Squares (Math. 132s).....	—	2
General Physics (Phys. 1y).....	4	4
*Elements of Statistics (Stat. 14f).....	3	—
*Economic Statistics (Stat. 15s).....	—	3
*Biological Statistics (Stat. 111f).....	2	—
*Advanced Biological Statistics (Stat. 112s).....	—	2
Electives	3	5
	16	16

* Elect two.

<i>Senior Year</i>	<i>Semester</i>	
	<i>I</i>	<i>II</i>
Advanced Plane Analytic Geometry (Math. 145f).....	2	—
Theory of Equations (Math. 151f).....	2	—
Statistical Design (Stat. 116s).....	—	2
Problems (Stat. 120).....	—	4
Electives	12	10
	16	16

HORTICULTURE

The State of Maryland and other States offer many excellent opportunities in horticultural industries; large fruit enterprises, producing apples, peaches, strawberries, raspberries, and other fruits for domestic and foreign markets; extensive greenhouse establishments, growing flowers and vegetables; canning and preserving factories in vegetable and fruit areas; nurseries, propagating trees and plants of all kinds; and concentrated farming areas devoted to vegetable production for market and canning. These industries require men with a specialized knowledge of production and marketing phases of the horticultural crops which are produced.

The Department of Horticulture offers instruction in pomology (fruits), olericulture (vegetables), floriculture (flowers), and ornamental gardening to meet the demand for men in the several horticultural industries, and in related work as teachers, county agents, fruit inspectors, and scientific investigators in private and public research laboratories, including special horticultural workers with fertilizer companies, seed companies, machinery companies, and related industries.

Students in horticulture have considerable latitude in the selection of horticultural courses, but usually find it advisable to specialize by electing all of the courses offered in pomology, olericulture, or floriculture, according to the following suggested curricula.

The department is equipped with several greenhouses and a modern horticultural building, with laboratories and cold storage rooms, for horticultural teaching and research. Extensive acreage near the University is devoted to the growing of fruit trees and vegetable crops. An arboretum with many ornamental plants has been started on the University grounds for use in teaching of horticulture and other related subjects.

The following curricula will be adjusted to the special needs of students whose interests lie in the general scientific field or those who are preparing for work in technical lines. The object is to fit students most effectively to fill positions of several types.

Curricula

Pomology and Olericulture

	Semester	
	I	II
<i>Sophomore Year</i>		
Diseases of Plants (Plt. Path. 1f).....	4	—
Geology (Geol. 1f).....	3	—
Fundamentals of Economics (Econ. 57f).....	3	—
General Botany (Bot. 2s).....	—	4
Introductory Entomology (Ent. 1s).....	—	3
Soils and Fertilizers (Soils 1s).....	—	3-5
General Horticulture (Hort. 1f and 2s).....	3	3
Expository Writing (Eng. 5f, 6s).....	2	2
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
	—	—
	17	17
<i>Junior Year</i>		
Fruit Production (Hort. 3f).....	3-5	—
Plant Physiology (Plt. Phys. 101f).....	4	—
Small Fruits (Hort. 7s).....	—	2-3
Vegetable Production (Hort. 4s).....	—	2-4
Diseases of Fruits (Plt. Path. 101f) or Diseases of Garden and Field Crops (Plt. Path. 102s).....	4	—
*World Fruits and Nuts (Hort. 106s).....	—	2
Electives	1-3	7-8
	—	—
	16	16
<i>Senior Year</i>		
Genetics (Gen. 101f).....	3	—
Technology of Horticultural Plants (Hort. 101f, 102s).....	4	4
*Insect Pests of Spécial Groups (Ent. 104f and s).....	3	3
Seminar (Hort. 14y).....	1	1
Electives	4	7
	—	—
	15	15

*Courses given in alternate years.

Note: Systematic Pomology (Hort. 104s) 3 credits, and Systematic Olericulture (Hort. 105s) 3 credits, are given in Summer School and are advised for graduate and undergraduate students who intend to enter technical or teaching work.

Floriculture and Ornamental Horticulture

	Semester	
	I	II
<i>Sophomore Year</i>		
Geology (Geol. 1f).....	3	—
General Botany (Bot. 2s).....	—	4
Local Flora (Bot. 3s).....	—	2
Expository Writing (Eng. 5f, 6s).....	2	2
General Horticulture (Hort. 1f).....	3	—
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
Elect from the following courses:		
Landscape Gardening (Hort. 10f).....	2	—
Plane Surveying (Surv. 2y).....	2	3
Engineering Drawing (Dr. 1Af).....	2	—
Diseases of Plants (Plt. Path. 1f).....	4	—
Fundamentals of Economics (Econ. 57s).....	—	3
Introductory Entomology (Ent. 1s).....	—	3
	—	—
	16	16
<i>Junior Year</i>		
*Garden Flowers (Hort. 8f).....	3	—
Soils and Fertilizers (Soils 1s).....	—	5
*Plant Materials (Hort. 107y).....	3	2
Plant Physiology (Plt. Phys. 101f).....	4	—
Elect from the following courses:		
Genetics (Gen. 101f).....	3	—
Vegetable Production (Hort. 4s).....	—	2
*Greenhouse Management (Hort. 5f and 6s).....	3	3-4
*Civic Art (Hort. 13s).....	—	2
Landscape Design (Hort. 11f and 12s).....	3	3
*Commercial Floriculture (Hort. 9y).....	3	4
	—	—
	16	16
<i>Senior Year</i>		
Seminar (Hort. 14y).....	1	1
Special Problems (Hort. 15y).....	2	2
Technology of Horticultural Plants (Hort. 103f).....	2	—
Electives	11	13
	—	—
	16	16

Elect from courses listed for the Sophomore and Junior Years and from other courses† offered in Entomology, Agronomy, Agricultural Engineering, Botany, Economics, Genetics, Statistics, Plant Physiology, Bacteriology, Plant Pathology, Speech, English, Business Administration, Modern Languages, Fine Arts, or Education.

*Courses given only in alternate years.

†Such electives are advised for all students in Horticulture.

POULTRY HUSBANDRY

The curriculum in poultry husbandry is designed to give the student a thorough knowledge of subject matter necessary for poultry raising; the marketing, distribution, and processing of poultry products; poultry improvement work; and as a basis for graduate training for teaching and research in poultry husbandry.

The poultry industry of Maryland ranks second to dairying in economic importance among the agricultural industries of the State. Nearby markets provide a profitable outlet for poultry products of high quality in larger volume than now produced in the State. The necessary quality can be attained by intelligent, trained poultry husbandmen.

The suggested curriculum will be modified to meet the special needs of individual students. For example, most students will be expected to take the courses in agricultural industry and resources and farm organization offered in the general curriculum for the freshman year. Superior students, definitely anticipating preparation for a professional career in poultry husbandry, will be expected to take language instead. However, all students concentrating in poultry husbandry will be required to complete 24 semester hours in poultry husbandry.

Curriculum

	Semester	
	I	II
Sophomore Year		
Poultry Production (P. H. 1f).....	3	—
Poultry Management (P. H. 2s).....	—	3
Advanced Public Speaking (Speech 3f, 4s).....	2	2
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
Elect one of the following:		
Elements of Organic Chemistry (Chem. 12Ay and 12By) } Economics (Econ. 57f and A. E. 102s).....	3	3
Elect two of the following:		
Elementary Mathematical Analysis (Math. 24y).....	3-3	6
Elementary Physics (Phys. 3y).....	3-3	
Modern Language (French or German).....	3-3	
Introductory Entomology and Insect Biology (Ent. 1f and 5s).....	3-3	
Agriculture (D. H. 2s or A. H. 2s).....	-3	
or (Agron. 1f and 2s).....	3-3	6
or (Hort. 1f and 4s).....	3-3	
	16	16

	Semester	
	I	II
Junior Year		
Poultry Biology (P. H. 3f).....	2	—
Poultry Genetics (P. H. 101s).....	—	3
Poultry Nutrition (P. H. 102s).....	—	2
Poultry Physiology (P. H. 106f).....	2	—
General Bacteriology (Bact. 1f).....	4	—
Farm Finance (A. E. 104s).....	—	3
Genetics (Gen. 101f).....	3	—
Elect one of the following:		
General Physiological Chemistry (Chem. 108s).....	— 4	4
Pathogenic Bacteriology (Bact. 2s).....	— 4	
Economics (Econ. 57f and A. E. 102s) or Electives	3	3-4
Farm Buildings (Agr. Engr. 105f).....	2	—
	16	15-16
Senior Year		
Poultry Products (P. H. 104y).....	2-2	4
Poultry Hygiene (V. S. 107s).....	-2	
Poultry Industrial and Economic Problems (P. H. 107f).....	3-	2
Biological Statistics (Stat. 111f and 112s).....	2	
Rural Sociology (Soc. 101f).....	2	—
Preservation of Poultry Products (Bact. 108s).....	—	2
Electives	7	8
	16	16

SPECIAL STUDENTS IN AGRICULTURE

Mature students who are not candidates for degrees may, on consent of the dean, register as special students and pursue a program of studies not included in any regular curriculum, but arranged to meet the needs of the individual. In case such persons have not fulfilled the regular college entrance requirements, they may arrange to audit (to attend without "credit") certain of the agricultural classes. All university fees for these special students are the same as fees for regular students.

There are many young farmers who desire to take short intensive courses in their special lines of work during slack times on the farm. Arrangements have been made to permit such persons to register at the office of the Dean of the College of Agriculture and receive cards granting them permission to visit classes and work in the laboratories of the different departments. This opportunity is created to aid florists, poultrymen, fruit-growers, gardeners, or other especially interested persons who are able to get away from their work at some time during the year.

The regular charges are *\$5.00 for registration and \$1.50 per credit hour per month for the time of attendance.

*One registration is good for any amount of regular or intermittent attendance during a period of four years.

AGRICULTURAL EXPERIMENT STATION

The Agricultural Experiment Station is the research agency of the University, dealing with problems related to agriculture. Support for research is provided by both State and Federal appropriations. The Federal Acts are as follows: Hatch Act, 1887; Adams Act, 1906; Purnell Act, 1925; and Bankhead-Jones Act, 1935.

The Hatch Act established State Experiment Stations and defined the scope and type of original researches that might be undertaken. In general, the work done under the Hatch and Adams funds pertains to the physical and biological sciences and promotes a better understanding of plants and animals. The Purnell Act bears more directly upon investigations and experiments having to do with manufacture, preparation, use, distribution, and marketing of agricultural products. Its funds may be used also for such economic and sociological investigations as have for their purpose the development and improvement of rural homes and rural life. Work under Bankhead-Jones funds must have a bearing upon new and improved methods of production and distribution, new and extended use and markets for agricultural commodities and by-products and manufactures thereof, and research relating to conservation, development, and use of land and water resources for agricultural purposes.

In addition to work conducted at the University, the Station operates an experimental farm of 50 acres at Ridgely for canning crops and grain farming; a farm of 60 acres at Upper Marlboro for tobacco investigations, and a farm of 234 acres near Ellicott City for livestock. Regional tests and experiments are conducted in cooperation with farmers at many different points in the State. Most of these cooperative experiments deal with crops, soils, fertilizers, orchards and insect and plant disease control, and serve as checks upon the more detailed and fundamental work done at the main Station.

EXTENSION SERVICE

The Extension Service of the University of Maryland was established by State and Federal laws, and is designed to assist farmers and their families in promoting the prosperity and welfare of agriculture and rural life. Its work is conducted in cooperation with the United States Department of Agriculture.

The Extension Service is represented in each county of the State by a county agent and a home demonstration agent. Through these agents and its staff of specialists, it comes into intimate contact with rural people and with problems of the farm and home.

Practically every phase of agriculture and rural home life comes within the scope of extension work. Farmers are supplied with details of crop and livestock production, and with instructions for controlling diseases and insect pests; they are encouraged and aided in organized efforts, helped with marketing problems and assisted in improving economic conditions

on the farm. Rural women are assisted likewise in problems of the home and with such information as tends to make rural home life attractive and satisfying. The 4-H Club work for rural boys and girls provides a valuable type of instruction in agriculture and home economics, and affords a real opportunity to develop self-confidence, perseverance, and leadership.

The Extension Service works in accord with all other branches of the University and with all agencies of the United States Department of Agriculture. It is charged with carrying out in Maryland the program of the Agricultural Adjustment Administration. It cooperates with all farm and community organizations in the State which have as their major object the improvement of agriculture and rural life; and it aids in making effective the regulatory and other measures instituted by the State Board of Agriculture.

REGULATORY ACTIVITIES

Regulatory services carried on under the supervision of members of the faculty and staff of the College of Agriculture have as their general aim the reduction of loss caused by insect pests and diseases of animals and plants, protection of human health by guarding against communicable diseases of livestock and unwholesome products, improvement in quality of farm products, and maintenance of guaranteed quality in seeds, feeds, fertilizers, and limes. These services are carried on in accordance with laws and regulations under which they were established. Actual enforcement is involved in some activities, while in others the work is primarily or entirely educational.

Agencies engaged in various forms of regulatory activities include the Livestock Sanitary Service, State Horticultural Department, State Department of Markets, State Seed Service, and State Department of Forestry. Operating under the State Chemist at the University, there is also the enforcement of regulations pertaining to fertilizers, limes, and feeds.

These agencies are at work constantly in efforts to control and eradicate, when possible, any serious pests and diseases of animals, of crops of all kinds, of shade trees, of ornamental plants, and of forest trees. They are ever on the alert to prevent introduction of pests and diseases into the State and execute the laws and regulations with respect to shipping animals, plants, and other products into and out of Maryland. They deal with such problems as control and eradication of tuberculosis and Bang's disease of cattle, Japanese beetle, and white pine blister rust.

By inspection and certification of seeds and farm products and through demonstrations of recognized grades and standards, they contribute to improvement in quality and marketing conditions.

COLLEGE OF ARTS AND SCIENCES

L. B. BROUGHTON, *Dean.*

The College of Arts and Sciences provides four years of liberal training in the biological sciences, in economics, history, languages and literatures, mathematics, philosophy, the physical sciences, political science, psychology, and sociology. It thus affords an opportunity to acquire a general education which will serve as a foundation for whatever profession or vocation the student may choose. In particular, it lays the foundation for the professions of dentistry, law, medicine, nursing, teaching, and theology, and the more technical professions of engineering, public health service, public administration, and business. The College of Arts and Sciences offers to the students of the other colleges of the University training in fundamental subjects, both classical and scientific, which should permit them to acquire the perspective necessary for liberal culture and public service.

Divisions

The College of Arts and Sciences is divided into one Lower Division and four Upper Divisions. Under the latter are grouped the following departments:

- A. The Division of Biological Sciences: Bacteriology, Botany, Entomology, Genetics, and Zoology.
- B. The Division of Humanities: Art, Classical Languages and Literatures, Comparative Literature, English Literature and Philology, Modern Languages and Literatures, Music, Philosophy, and Speech.
- C. The Division of Physical Sciences: Astronomy, Chemistry, Geology, Mathematics, Physics, and Statistics.
- D. The Division of Social Sciences: Economics, History, Political Science, Psychology, and Sociology.

The work of the first and second years in the College of Arts and Sciences is taken in the Lower Division. It is designed to give the student a basic general education, and to prepare him for specialization in the junior and senior years.

The Upper Divisions direct the courses of study of students doing their major work in the College of Arts and Sciences during their junior and senior years, and designate general requirements, the fulfillment of which is necessary to qualify a student for admission to major work in an Upper Division.

Requirements for Admission

The requirements for admission to the College of Arts and Sciences are, in general, the same as those for admission to the other colleges and schools of the University. See Section I, Admissions, page 51.

For admission to the premedical curriculum, two years of any one foreign language are required. A detailed statement of the requirements for admission to the School of Medicine and the relation of these to the premedical curriculum will be found under the heading *School of Medicine*. See page 210.

Degrees

The degrees conferred upon students who have met the requirements prescribed in the College of Arts and Sciences are Bachelor of Arts and Bachelor of Science.

Students of this college who have completed the regular course in either the Division of Humanities or the Division of Social Sciences are awarded the degree of Bachelor of Arts. Any student who has met the requirements for the degree of Bachelor of Science is awarded that degree, provided the major portion of the work has been done in the field of science, and the application has the approval of the science department in which the major work has been carried.

Students who have elected the combined program of Arts and Sciences and Medicine may be granted the degree of Bachelor of Science after the completion of at least three years of work in this college and the first year of the School of Medicine.

Those electing the combined five-year Academic and Nursing curriculum, for which the degree of Bachelor of Science in Nursing may be awarded upon the completion of the full course, must take the prenursing curriculum at College Park before the Nursing Course in Baltimore.

Those taking the combined course in Arts and Law may be awarded the Bachelor of Arts degree after the completion of three years of the work of this college and one year of the full-time law course, or its equivalent, in the School of Law.

Residence

The last thirty credits of any curriculum leading to a baccalaureate degree in the College of Arts and Sciences must be taken in residence in this University.

Requirements for Degrees

The baccalaureate degree from the College of Arts and Sciences may be conferred upon a student who has satisfied the following requirements:

1. University Requirements.
2. College of Arts and Sciences Requirements.
3. Major and Minor Requirements.
4. Special Upper Division Requirements.

1. *University Requirements*—See page 57.

2. *College of Arts and Sciences Requirements*—A minimum of 120 credits must be acquired, not including the six credits of basic military science required of all able-bodied men students, or the six credits of physical education for women and for such men as are excused from military science.

A student must acquire at least 58 credits, exclusive of military science and physical education, with an average grade of at least C in the Lower Division, before being admitted to an Upper Division.

The following minimum requirements should be fulfilled, as far as possible, before the beginning of the junior year and must be completed before graduation:

I. English and Speech—fourteen credits. Of these, Survey and Composition I (Eng. 1y) and Reading and Speaking (Speech 1y) are required.

II. Foreign Languages and Literature—twelve credits.

III. Social Sciences—twelve credits. This requirement is fulfilled by electing courses in Economics, History, Political Science, Psychology, and Sociology.

IV. Natural Sciences and Mathematics—twelve credits. Of these one year must be in natural science.

V. Military Science or Physical Education—six credits.

3. *Major and Minor Requirements*—At the beginning of the junior year each student must select a major in one of the fields of study of an Upper Division, and before graduation must complete a major and a minor. The courses constituting the major and the minor selected must conform to the requirements of the department in which the major work is done.

Before beginning a major or a minor the student should have acquired twelve credits in fundamental courses in the field chosen, or in a closely related field satisfactory to the Division, with an average grade of at least C, before credit will be allowed toward completion of the major or minor requirements.

A major shall consist of not fewer than 20 nor more than 36 credits, in addition to the 12 credits required in the Lower Division, in one of the fields of study. Of these credits at least 8 must be acquired in courses listed for advanced undergraduates and graduates.

A minor shall consist of not fewer than 12 nor more than 20 credits, in addition to the 12 credits required in the Lower Division, in some field of study other than the major. At least 6 of these must be acquired in courses listed for advanced undergraduates and graduates.

Not more than 15 credits may be acquired in any field of study other than the major or minor during the last two years, in addition to those which meet the College of Arts and Sciences requirements.

The average grade of the work taken in the major and minor fields must be at least C. A general average of at least C is required for graduation.

4. *Special Upper Division Requirements*—

A. Division of Biological Sciences. See page 110.

B. Division of Humanities. See page 114.

C. Division of Physical Sciences. See page 116.

D. Division of Social Sciences. See page 123.

Certification of High School Teachers

If courses are properly chosen in the field of education, a prospective high school teacher can prepare for high school positions, with major and minor in any of the Upper Divisions of this College.

The College of Education requires that at least twenty credits must be acquired in educational subjects before one can be certified for high school teaching.

Electives in Other Colleges and Schools

A limited number of courses may be counted for credit in the College of Arts and Sciences for work done in other colleges and schools of the University.

The number of credits which may be accepted from the various colleges and schools is as follows:

College of Agriculture—Fifteen.

College of Commerce—Fifteen.

College of Education—Twenty.

College of Engineering—Fifteen.

College of Home Economics—Fifteen.

School of Law—In the combined program the first year of law must be completed.

School of Medicine—In the combined program the first year of medicine must be completed.

School of Nursing—In the combined program the three years of nursing must be completed.

Normal Load

The normal load for the freshman in this college is sixteen credits per semester, including one hour of basic military science or physical education.

The normal load for the sophomore year is seventeen credits per semester, two of which are in military science or physical education.

The normal load in the junior and senior years is 15 credits per semester. With the permission of the Dean of the College of Arts and Sciences and

the Chairman of the Division, this load may be increased to 17, a maximum except for honor students. The load of honor students shall lie within the discretion of the Dean and the Chairman of the Division, but in no case shall it exceed 19 credits per semester.

Advisers

Freshmen and sophomores in this college shall consider the Dean of the College and the Chairman of the Lower Division their advisers.

On entrance to the University each student of the College of Arts and Sciences is assigned to a member of the faculty of the College, who serves as his special adviser. The student should consult his adviser on all matters of his university life in which he may need advice.

Juniors and seniors must consider the chairmen of their major departments their advisers, and shall consult them about the arrangements of their schedules of courses and any other matters in which they may desire advice.

THE LOWER DIVISION

CHARLES E. WHITE, *Chairman.*

The work of the first two years in the College of Arts and Sciences is designed to give the student a basic general education, and to prepare him for specialization in the junior and senior years.

It is the student's responsibility to develop in these earlier years such proficiency in basic subjects as may be necessary for his admission into one of the Upper Divisions of the College. Personal aptitude and a general scholastic ability must also be demonstrated, if permission to pursue a major study is to be obtained.

Suggested courses of study for the freshman and sophomore years are given under certain of the Upper Divisions. The student should follow the curriculum for which he is believed to be best fitted. It will be noted that there is a great deal of similarity in these outlines for the first two years, and a student need not consider himself attached to any particular Upper Division until the beginning of his junior year, at which time it is necessary to select a major.

The Requirements of the College of Arts and Sciences for graduation as outlined on page 103, should be completed as far as possible in the Lower Division.

TYPICAL FRESHMAN PROGRAM

Required:	Semester	
	I	II
*Survey and Composition I (Eng. 1y).....	3	3
Foreign Language (French, German, Spanish, Latin, Greek, Italian)	3	3
Science (Botany, Chemistry, Entomology, Geology, Physics, Zoology)	3 or 4	3 or 4
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y).....	1	1
Elect from the following so that the total credits each semester is 16 or 17:		
Survey of Western Civilization (H 1y).....	3	3
History of England and Great Britain (H 3y).....	3	3
Mathematics (Math. 8f or 11f and 10s; 21f and 22s).....	3 or 4	3 or 4
Economic Geography (T. and T. 1f).....	3	—
Development of Commerce and Industry (T. and T. 4s).....	—	3
American National Government (Pol. Sci. 1f or s).....	3	or 3

*A placement test is given during Registration Week to determine whether the student is adequately prepared for Eng. 1y. A student failing this test is required to take Eng. A, a one-semester course, without credit. After five weeks, he may be transferred from Eng. A to Eng. 1y, for which he will receive full credit, or from Eng. 1y to Eng. A, according to his demonstrated ability.

	Semester	
	I	II
State and Local Government (Pol. Sci. 4s).....	—	3
Comparative Government (Pol. Sci. 8s).....	—	2
Reading and Speaking (Speech 1y).....	1	1
Epic Poetry in European Literature (Comp. Lit. 2y).....	2	2
Library Methods (L. S. 1f or s).....	1	or 1
Art (Art 1f, 3f, 2s, 4s).....	2	2
Music (Mus. 1y, 2y, 3y, 4y, 5y).....	½ to 2	½ to 2
Mechanical Drawing (Dr. 6y).....	1	1
	—	—
	16-17	16-17

TYPICAL SOPHOMORE PROGRAM

Survey and Composition II (Eng. 2f and 3s).....	3	3
Foreign Language	3	3
R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
General Electives from the College of Arts and Sciences fulfilling, as far as possible, the specific requirements of the College of Arts and Sciences.....	9-10	9-10
	—	—
	17-18	17-18

A—DIVISION OF BIOLOGICAL SCIENCES

L. H. JAMES, *Chairman.*

The Division of Biological Sciences is organized to stimulate close coordination between all activities in the field of biology. The Division includes the Departments of Bacteriology, Botany, Entomology, Genetics, and Zoology.

Each department within the Division has one or more established curricula. To meet the demands for technically trained workers in the biological sciences these curricula are designed to give specialized training, particularly during the last two years of college work. They provide, more specifically, the basic knowledge and experience required for (1) teaching in secondary schools; (2) research and regulatory work in federal, state, and municipal departments and bureaus; (3) admission to graduate study in the preparation for college teaching and advanced research; and (4) entrance to the professional schools of medicine, dentistry, and nursing.

Instruction

Alliance of the biological sciences presents an opportunity for the pursuit of a well coordinated program of study. Completion of a suggested undergraduate curriculum under any one of the departments fulfills the requirements for the degree of Bachelor of Science. Advanced work also is presented in each of the biological sciences for the degrees of Master of Science and Doctor of Philosophy.

Although the undergraduate training in any Department of the Division is both thorough and well-balanced, nevertheless, one or more years of post-graduate instruction and experience and the attainment of an advanced degree are desirable in preparation for the larger opportunities that arise in this rapidly expanding field. The need for workers in the fields of agriculture, home economics, industry, public health, etc., presents almost unlimited opportunities for specialization and has made it necessary to correlate closely the undergraduate courses in this Division with those offered in the Graduate School in order to equip the advanced student adequately in his own work and in related fields.

A special curriculum in General Biological Science is presented primarily for those interested in teaching biological science or general science in elementary and high schools. Also students in the pre-professional schools who expect to complete their work for the degree of Bachelor of Science may, in following the pre-professional curriculum, complete a major in certain departments of the Division of Biological Sciences by the proper selection of courses.

The particular professions and lines of work for which each department in this Division prepares its students are outlined in greater detail under the description of each department.

Requirements for Graduation

1. *University Requirements.* See page 57.
2. *College of Arts and Sciences Requirements.* See page 103.
3. *Physical Sciences*—Ten semester hours in addition to the twelve required by the College of Arts and Sciences, the total to include basic courses in chemistry, physics, and mathematics.

Fields of Study

The curriculum outlined in each field of study represents the courses which, in the judgment of the Department and Division, are necessary for an adequate training in the particular subject. In most curricula enough electives are included to give the student ample opportunity to study subjects outside his major or minor departments in which he may have become interested or in which further training is desired.

Bacteriology

The courses in this Department prepare students for such positions as dairy, sanitary, food, and soil bacteriologists in federal, state, and municipal departments and for public health, research, and industrial positions. The suggested curriculum is given on page 87.

Botany

The Department of Botany offers three major lines of work; General Botany and Morphology, Plant Physiology, and Plant Pathology. In Plant Pathology the student is trained in plant disease control and investigation for advisory, extension, and research work in the various agricultural colleges, experiment stations, and the United States Department of Agriculture; and in such commercial concerns as seed companies, those making spray materials, farmer cooperatives, etc. The suggested curriculum is given on page 89.

Entomology

The Department of Entomology is equipped to furnish general courses for students of biology and other subjects in the College of Arts and Sciences as well as to train students for careers in research, teaching, or control work in the field of professional Entomology.

Two courses offered by the Department, Ent. 1 and Ent. 5s, have been organized particularly to meet the needs of students in the College of Arts and Sciences. Several other courses will serve to strengthen the program of students with a major in the biological sciences. In view of the fact that nearly 80% of all known species of animals in the world are insects, it is essential that the students of biology elect some work in Entomology. The suggested curriculum is given on page 91.

Genetics

The courses in Genetics are designed to provide training in the principles of heredity and genetics for those interested in plant and animal breeding and in eugenics. The suggested curriculum is given on page 94.

Zoology

The Zoology Department offers courses designed to train students for teaching and for service in the biological bureaus of the United States Government and in the biological departments of the various states. Emphasis is placed on morphology, physiology, and marine biology. Instruction and opportunities for original investigation in the latter are supplemented by the research facilities and courses of instruction offered at the Chesapeake Biological Laboratory, a description of which is found on page 362.

Curriculum

	<i>Semester</i>	
	<i>I</i>	<i>II</i>
<i>Freshman Year</i>		
Invertebrate Morphology (Zool. 3f).....	4	—
Comparative Vertebrate Morphology (Zool. 4s).....	—	4
General Chemistry (Chem. 1y).....	4	4
Survey and Composition I (Eng. 1y).....	3	3
Reading and Speaking (Speech 1y).....	1	1
Modern Language (French or German).....	3	3
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y).....	1	1
	16	16
<i>Sophomore Year</i>		
Animal Histology (Zool. 12f).....	3	—
Vertebrate Embryology (Zool. 20s).....	—	3
General Botany (Bot. 1f) or General Bacteriology (Bact. 1f)	4	—
General Bacteriology (Bact. 1s) or Pathogenic Bacteriology (Bact. 2s).....	—	4
Survey and Composition II (Eng. 2f, 3s).....	3	3
Modern Language (French or German).....	3	3
College Algebra and Analytic Geometry (Math. 8f or 11f and 10s).....	3	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
	18	18

	Semester	
	I	II
<i>Junior Year</i>		
Animal Geography (Zool. 108f).....	3	—
Animal Genetics (Zool. 120s).....	—	3
General Physics (Phys. 1y).....	4	4
Electives (Zoology)	3	3
Electives	5	5
	—	—
	15	15
<i>Senior Year</i>		
Journal Club (Zool. 106y).....	1	1
General Animal Physiology (Zool. 103f, 104s).....	3	3
Electives	11	11
	—	—
	15	15

General Biological Sciences

A curriculum has been prepared for students who are interested in biology but whose interests are not centralized in any one of the biological sciences. The courses as outlined familiarize the student with the general principles and methods of each of the biological sciences.

By the proper selection of courses during the junior and senior years a student may concentrate his work sufficiently in any one of the fields of study to be able to continue in graduate work in that field.

Requirements

A major in general biological sciences shall consist of not fewer than 45 credits in the biological sciences, of which no fewer than 16 credits must be acquired in courses for advanced undergraduates and graduates.

Curriculum

<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
Modern Language (French or German).....	3	3
Reading and Speaking (Speech 1y).....	1	1
General Chemistry (Chem. 1y).....	4	4
General Botany (Bot. 1f).....	4	—
General Zoology (Zool. 1s).....	—	4
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y).....	1	1
	—	—
	16	16

	Semester	
	I	II
<i>Sophomore Year</i>		
Survey and Composition II (Eng. 2f, 3s).....	3	3
College Algebra and Analytic Geometry (Math. 8f or 11f and 10s)	3	3
Modern Language (French or German).....	3	3
Introductory Entomology (Ent. 1f).....	3	—
General Bacteriology (Bact. 1s).....	—	4
Electives (Sciences)	4	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
	—	—
	18	18
<i>Junior Year</i>		
General Physics (Phys. 1y).....	4	4
Electives (Social Sciences).....	3	3
Electives (Botany and Zoology).....	4	4
Electives (Entomology and Bacteriology).....	4	4
	—	—
	15	15
<i>Senior Year</i>		
Electives (Social Sciences).....	3	3
Electives (Biological Sciences).....	9	9
Electives	3	3
	—	—
	15	15

B—THE DIVISION OF HUMANITIES

ADOLF E. ZUCKER, *Chairman*

The Division of Humanities is composed of the Departments of Art, Classical Languages, Comparative Literature, English Language and Literature, Modern Languages, Music, Philosophy, and Speech.

This Division has two main functions: (1) to provide for its own major students a thorough training in literature, philosophy, languages, and the fine arts; (2) to furnish for students in other Divisions, especially for those taking preprofessional work, background and elective studies in the departments of the Division.

At present, the Division offers major and minor work for the Master of Arts and the Doctor of Philosophy degrees in English Language and Literature and in Modern Languages; minor work for the Master of Arts may be elected in Philosophy and Comparative Literature. Detailed requirements for these degrees are given under the departmental announcements and in the catalogue of the Graduate School.

Training for the Master of Arts degree is directed especially toward acquainting the candidate with methods of research and the literature in his own fields. For the degree of Doctor of Philosophy, the candidate is required not only to be thoroughly acquainted with his major and minor fields and with the scholarly accomplishments therein, but also to devote himself intensively to a specific research problem in which he shall make an original contribution to human knowledge.

Additional Requirements for Graduation

The following requirements in addition to those of the College of Arts and Sciences (including a general average of C—see page 104) should be completed, as far as possible, before the beginning of the junior year.

1. *Library Science*—one credit.
2. *English 2f and 3s*—six credits.
3. *Modern Language*—To be accepted unconditionally in the Division of Humanities, a student must have attained a reading knowledge of at least one foreign language. In satisfaction of this requirement, he must pass one of the general language examinations, which are given during the first and last days of each college year, with a grade as high as C. Maryland students should take the examination not later than the close of the sophomore year or the beginning of the junior year. Transfer students should take the examination upon entrance. The student must show in this examination that he has attained the

reading ability to be expected after two years of a college language course. When the student has passed the general language examination, he will have satisfied the language requirements; but in no case will a student in the Division be graduated who has not acquired at least 12 credits of a foreign language in college.

4. *Philosophy*—three credits.

5. *Psychology*—three credits.

6. *Major and Minor Requirements*—In selecting a major or a minor, a student must have acquired twelve credits in fundamental courses in the field chosen, or in a closely related field satisfactory to the Division, with an average grade of at least C, before credit will be allowed toward the completion of the major or minor requirements. In addition:

A major shall consist of not fewer than 20 nor more than 36 credits in one of these fields of study. At least 16 of these credits must be taken in courses listed for advanced undergraduates and graduates.

A minor shall consist of not fewer than 12 nor more than 20 credits in one of the above fields of study not selected for the major, or in some other field of study authorized in the College of Arts and Sciences. At least 9 of these credits must be taken in courses listed for advanced undergraduates and graduates.

The student must acquire at least 30 credits in courses not included in the major or minor.

For additional requirements for major students, see the departmental announcements under English (page 302) and Modern Languages (page 330).

MAJOR AND MINOR

Fields of Study

*Classical Languages	German
*Comparative Literature	*Philosophy
English	*Speech
French	Spanish

*Not available at present for a major.

C—THE DIVISION OF PHYSICAL SCIENCES

WILBERT J. HUFF, *Chairman*

The Division of Physical Sciences is composed of the departments of Astronomy, Chemistry, Geology, Mathematics, Physics, and Statistics. On the following pages the division outlines a number of curricula, each requiring four years for completion, leading to the degrees of Bachelor of Science or Bachelor of Arts. The departments of study have developed courses to contribute to the liberal education of students not primarily interested in science; to provide the basic knowledge of the physical sciences necessary for so many professions such as agriculture, dentistry, engineering, home economics, medicine, pharmacy, and others; to equip teachers of the Physical Sciences for secondary schools and colleges; and to train students for professional service as chemists, chemical engineers, geologists, mathematicians, physicists, and statisticians, and to prepare for graduate study and research in the Physical Sciences.

The fields of knowledge represented by the Physical Sciences are so vast and their applications are so important that it is impossible to deal adequately with any one in a four-year undergraduate curriculum. Students who aspire to proficiency are therefore encouraged to continue their studies in the graduate years. In the work leading to a Master's degree, the student becomes acquainted with the general aspects of the field. In partial fulfillment of the requirements for the degree of Doctor of Philosophy, the student must demonstrate a command of his chosen field sufficiently great to permit him to make independent investigations and creative contributions.

No degree will be granted to a student in any department of Physical Sciences whose general average in all courses offered for the degree is below C. To enroll in the Division of Physical Sciences, at the beginning of the junior year a student must select a major in one of the departments and before graduation must complete a major and a cognate minor selected to conform to the requirements of the department in which the major work is done.

The candidate for a baccalaureate degree in the College of Arts and Sciences will be governed by the requirements for that degree established by the University and the College, including the major and minor requirements, except the candidate who offers the curriculum in General Physical Science, for whom special requirements are stated below.

For the University requirements see page 57.

For the College of Arts requirements and major and minor requirements see page 103.

Detailed description of the undergraduate and graduate courses offered in this Division is given in Section III of this catalogue, *Description of Courses*.

Chemistry

The Department of Chemistry includes Agricultural, Analytical, Industrial, Inorganic, Organic, and Physical Chemistry, together with the State Control Work. The following curriculum prepares students to enter the fields of General Chemistry, Industrial Chemistry, Biological Chemistry, and Agricultural Chemistry.

Curriculum

	Semester	
	I	II
<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
Modern Language (French or German).....	3	3
College Algebra and Analytic Geometry (Math. 21f and 22s).....	4	4
General Chemistry (Chem. 1y).....	4	4
Reading and Speaking (Speech 1y).....	1	1
Mechanical Drawing (Dr. 4y).....	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y).....	1	1
	17	17
<i>Sophomore Year</i>		
Expository Writing (Eng. 5f, 6s).....	2	2
Modern Language (French or German).....	3	3
Calculus (Math. 23y).....	4	4
Qualitative Analysis (Chem. 2y).....	3	3
Elementary Organic Chemistry (Chem. 8Ay and 8By).....	4	4
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
	18	18
<i>Junior Year</i>		
Quantitative Analysis (Chem. 6y).....	4	4
Advanced Organic Chemistry (Chem. 116y, 117y).....	3	3
General Physics (Phys. 2y).....	5	5
Electives	3	3
	15	15
<i>Senior Year</i>		
Physical Chemistry (Chem. 102y).....	5	5
Electives	10	10
	15	15

Chemical Engineering—Chemistry

A five-year program in Chemical Engineering and Chemistry will be arranged between the College of Engineering and the College of Arts and Sciences which will permit students who so desire to become candidates for the degrees of Bachelor of Science and Bachelor of Science in Engineering.

Mathematics

Curriculum

	Semester	
	I	II
<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
Modern Language (French or German).....	3	3
College Algebra and Analytic Geometry (Math. 21f and 22s).....	4	4
Geometrical Drawing and Modeling (Math. 18y).....	1	1
Reading and Speaking (Speech 1y).....	1	1
General Chemistry (Chem. 1y).....	4	4
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y).....	1	1
Freshman Lectures	—	—
	17	17
<i>Sophomore Year</i>		
Survey and Composition II (Eng. 2f, 3s).....	3	3
Modern Language (French or German).....	3	3
Calculus (Math. 23y).....	4	4
Advanced Geometrical Drawing and Modeling (Math. 19y).....	1	1
General Physics (Phys. 2y).....	5	5
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
	—	—
	18	18
<i>Junior Year</i>		
Higher Algebra (Math. 141f).....	2	—
Advanced Calculus (Math. 143f).....	2	—
Electives in Mathematics.....	3	3
Physical Chemistry (Chem. 102Ay).....	3	3
Theoretical Mechanics (Phys. 106s) or Electricity and Magnetism (Phys. 108s).....	—	3
Electives	8	5
	—	—
	15	15

Senior Year

	Semester	
	I	II
History of Modern Mathematics (Math. 157s).....	—	2
Electives (Mathematics and Astronomy).....	4	2
Undergraduate Seminar (Math. 140y).....	1	1
Electric Discharge (Phys. 109y).....	3	3
Electives	7	7
	—	—
	15	15

Two curricula are offered in Physics, (1) The General Physics curriculum for students who desire a thorough training in the fundamentals of Physics in preparation for graduate work, research, and the teaching of Physics, (2) The Applied Physics curriculum for students who desire to train for industrial and applied physical research. The latter is intended to prepare students for positions in governmental laboratories and in the laboratories established by many industries for testing, research, and development by the application of physical principles and tools.

I. General Physics

Curriculum

	Semester	
	I	II
<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
Modern Language (French or German).....	3	3
College Algebra and Analytic Geometry (Math. 21f and 22s).....	4	4
General Chemistry (Chem. 1y).....	4	4
Mechanical Drawing (Dr. 6y).....	1	1
Reading and Speaking (Speech 1y).....	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y).....	1	1
	—	—
	17	17
<i>Sophomore Year</i>		
Survey and Composition II (Eng. 2f, 3s).....	3	3
Modern Language (French or German).....	3	3
Calculus (Math. 23y).....	4	4
General Physics (Phys. 2y).....	5	5
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
	—	—
	17	17

	Semester	
	I	II
<i>Junior Year</i>		
Advanced Mathematics	2	2
Advanced Physics	6	6
Qualitative Analysis (Chem. 2y)	3	3
Electives	4	4
	—	—
	15	15
<i>Senior Year</i>		
Physical Chemistry (Chem. 102Ay)	3	3
Advanced Physics	6	6
Electives	6	6
	—	—
	15	15

II. Applied Physics

Curriculum

<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y)	3	3
Reading and Speaking (Speech 1y)	1	1
Elementary German (German 1y)	3	3
College Algebra and Analytic Geometry (Math. 21f and 22s)	4	4
General Chemistry (Chem. 1y)	4	4
Mechanical Drawing (Dr. 6y)	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y)	1	1
	—	—
	17	17

<i>Sophomore Year</i>		
Survey and Composition II (Eng. 2f, 3s)	3	3
Second Year German (Ger. 3y)	3	3
Calculus (Math. 23y)	4	4
General Physics (Phys. 2y)	5	5
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 1y or 2y and 4y)	2	2
	—	—
	17	17

	Semester	
	I	II
<i>Junior Year</i>		
Electives (Social Sciences)	3	3
Differential Equations for Engineers (Math. 114f)	3	—
Heat (Phys. 105f)	3	—
Principles of Electrical Engineering (E. E. 102y)	4	4
Statics and Dynamics (Mech. 1s)	—	3
Thermodynamics (M. E. 103s)	—	3
Electives	3	3
	—	—
	16	16
<i>Senior Year</i>		
Electives (Social Sciences)	3	3
Physical Chemistry (Chem. 102Ay)	3	3
Electricity (Phys. 108y)	3	3
Strength of Materials (Mech. 102f)	4	—
Elective (Physics)	—	3
Electives	3	3
	—	—
	16	15

Statistics

The courses in Statistics are intended to provide training in the tools and methods employed in statistical description and induction, in the interpretation of statistical data presented by others, and in the gathering and organization of original data. The suggested curriculum is given on page 94.

General Physical Sciences

For students who desire a general basic knowledge of the physical sciences without immediate specialization in any one, a general curriculum is offered. By proper selection of courses in the junior and senior year a student may concentrate his work sufficiently in any one of the fields of study to be able to continue in graduate work in that field.

A major in the Physical Sciences shall consist of not less than 52 credits in the departments comprising the Division, of which at least 6 shall be acquired in courses listed for advanced undergraduates and graduates in one particular field. At least two courses in a field cognate to the just-mentioned particular field will be required, and one of these shall be among those listed for advanced undergraduates and graduates.

Curriculum

	Semester	
	I	II
<i>Freshman Year</i>		
Survey and Composition (Eng. 1y).....	3	3
Modern Language (French or German).....	3	3
College Algebra and Analytic Geometry (Math. 21f and 22s).....	4	4
General Chemistry (Chem. 1y).....	4	4
Reading and Speaking (Speech 1y).....	1	1
Mechanical Drawing (Dr. 4y).....	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y).....	1	1
	—	—
	17	17
<i>Sophomore Year</i>		
Survey and Composition II (Eng. 2f, 3s).....	3	3
Modern Language (French or German).....	3	3
Calculus (Math. 23y).....	4	4
General Physics (Phys. 2y).....	5	5
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
	—	—
	17	17
<i>Junior Year</i>		
Electives (Chem. 2y; 8Ay and 8By).....	3-4	3-4
Electives (Social Sciences).....	3	3
Electives (Math., Stst., Hist., Philos., Physics, Logic).....	2-3	2-3
Electives (Biological Sciences).....	4	4
Electives	1-3	1-3
	—	—
	15	15
<i>Senior Year</i>		
Electives (Social Sciences).....	3	3
Electives	12	12
	—	—
	15	15

D—THE DIVISION OF SOCIAL SCIENCES

J. G. JENKINS, *Chairman*

The Division of Social Sciences includes the departments of Economics, History, Political Science, Psychology, and Sociology.

In addition to supplying such courses as are required by other divisions and other colleges of the University, the departments in the Division of Social Sciences offer opportunities for advanced training in the several fields represented. Students who desire training in economics as part of a liberal education may register with the Department of Economics in the College of Arts and Sciences. (The College of Commerce provides practical training for those who intend to enter business careers.) The Department of Political Science offers the first three years of a combined Arts-Law course and also offers training in the field of public administration. The Department of Psychology is identified with the development of applied psychology and is in position to supply training in the industrial and clinical phases of the subject. The Department of Sociology provides a course of study preparatory to professional training in social work and offers the courses demanded by civil service examinations for certain positions. All five departments present courses aligned with the teacher-training program represented in the Arts-Education curriculum.

All of the departments offer graduate instruction leading to the degrees Master of Arts and Doctor of Philosophy. These advanced degrees are increasingly required for secondary school teaching and for professional positions in the several fields represented.

Requirements for Graduation

1. *University requirements*—See page 57.
2. *College of Arts and Sciences requirements*—See page 103.
3. *Major and Minor requirements*—See page 104.

Major and Minor Fields of Study

Economics	Psychology
History	Sociology
Political Science	

Combined Program in Arts and Law

The School of Law of the University requires two years of academic credit for admission to the school, or sixty semester hours of college credit.

The University also offers a combined program in Arts and Law, leading to the degrees of Bachelor of Arts and Bachelor of Laws. Students pursuing this combined program will spend the first three years in the College of Arts and Sciences at College Park. During this period they will complete the prescribed curriculum in prelegal studies as outlined below, and they must complete the Requirements for Graduation, as indicated on page 104. If students enter the combined program with advanced standing, at least

the third full year's work must be completed in residence at College Park. Upon the successful completion of one year of full-time law courses in the School of Law in Baltimore, the degree of Bachelor of Arts may be awarded on the recommendation of the Dean of the School of Law. The degree of Bachelor of Laws will be awarded upon the completion of the combined program.

Curriculum

	Semester	
	I	II
<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
Science or Mathematics.....	4-3	4-3
History of England and Great Britain (H. 3y).....	3	3
American National Government (Pol. Sci. 1f).....	3	—
State and Local Government (Pol. Sci. 4s).....	—	3
Foreign Language.....	3	3
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y).....	1	1
	—	—
	16-17	16-17
<i>Sophomore Year</i>		
Expository Writing (Eng. 5f, 6s).....	2	2
Science or Mathematics.....	2-3	2-3
Principles of Economics (Econ. 51y).....	3	3
American History (H. 2y).....	3	3
Reading and Speaking (Speech 1y).....	1	1
Foreign Language.....	3	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
	—	—
	16-17	16-17
<i>Junior Year</i>		
Introduction to Psychology (Psych. 1f).....	3	—
English or Speech.....	2	—
Constitutional Law (Pol. Sci. 131f).....	3	—
Administrative Law (Pol. Sci. 134s).....	—	3
Constitutional History of the United States (H. 108f and 109s) or Constitutional History of England (H. 125f and 126s).....	3	3
Legislatures and Legislation (Pol. Sci. 124s).....	—	3
Electives.....	4	6
	—	—
	15	15
<i>Senior Year</i>		

The student may elect either the curriculum for the first year of the School of Law or a fourth year's work from advanced courses offered in Political Science. In either case all of the requirements of the Division of Social Sciences and the College of Arts and Sciences for graduation must have been met.

THE PREPROFESSIONAL CURRICULA

Five-Year Combined Arts and Nursing Curriculum

The first two years of this curriculum are taken in the College of Arts and Sciences at College Park. If students enter this combined program with advanced standing, at least the second full year of this curriculum must be completed in College Park.

The remaining three years are taken in the School of Nursing of the University in Baltimore or in the Training School of Mercy Hospital, Baltimore. In addition to the Diploma in Nursing, the degree of Bachelor of Science may, upon the recommendation of the Director of the School of Nursing, be granted at the end of the five year curriculum. Full details regarding this curriculum may be found in the section of the catalogue dealing with the School of Nursing. See page 214.

Curriculum

	Semester	
	I	II
<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
Foreign Language.....	3	3
General Chemistry (Chem. 1y).....	4	4
Reading and Speaking (Speech 1y).....	1	1
History (H. 1y or 3y).....	3	3
American National Government (Pol. Sci. 1s).....	—	3
Library Methods (L. S. 1f).....	1	—
Physical Education (Phys. Ed. 2y and 4y).....	1	1
	—	—
	16	18
<i>Sophomore Year</i>		
Expository Writing (Eng. 5f, 6s).....	2	2
Principles of Sociology (Soc. 1f).....	3	—
Introduction to Psychology (Psych. 1s).....	—	3
Fundamentals of Economics (Econ. 57f).....	—	3
General Bacteriology (Bact. 1f).....	4	—
General Zoology (Zool. 1s).....	—	4
Foreign Language.....	3	3
Electives.....	3	—
Physical Education (Phys. Ed. 6y and 8y).....	2	2
	—	—
	17	17

Premedical

The minimum requirement for admission to the School of Medicine of the University of Maryland is three years of academic training in the College of Arts and Sciences. Curriculum I as outlined meets these requirements, and also fulfills the requirements prescribed by the Council on Medical Education of the American Medical Association.

Curriculum II is outlined to meet the requirements of the Council on Medical Education of the American Medical Society, which prescribes two years of academic training as the minimum prerequisite for entering a Class A Medical School.

Curriculum I offers to students completing this program and the first year of study in the University of Maryland School of Medicine the opportunity of securing the Bachelor of Science degree, on recommendation of the Dean of the School of Medicine.

The combined program of seven years leads to the degrees of Bachelor of Science and Doctor of Medicine upon the completion of the full curriculum. The first three years are taken in residence in the College of Arts and Sciences, and the remaining four in the School of Medicine.

At least two years of residence are necessary for students transferring from other colleges and universities who wish to become candidates for the two degrees.

For requirements for admission see Section I (Admission), page 51.

Curriculum I

For students expecting to enter the University of Maryland Medical School

	Semester	
	I	II
<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
College Algebra and Analytic Geometry (Math. 8f or 11f and 10s)	3	3
Invertebrate Morphology (Zool. 3f).....	4	—
Comparative Vertebrate Morphology (Zool. 4s).....	—	4
General Chemistry (Chem. 1y).....	4	4
Modern Language (French or German).....	3	3
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y).....	1	1
	18	18

Semester

Sophomore Year

	I	II
Survey and Composition II (Eng. 2f and 3s).....	3	3
Elementary Organic Chemistry (Chem. 8Ay and 8By).....	4	4
Modern Language (French or German).....	3	3
Animal Histology (Zool. 12f).....	3	—
Vertebrate Embryology (Zool. 20s).....	—	3
Introduction to Philosophy (Phil. 1f).....	3	—
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
	18	18

Junior Year

General Physics (Phys. 1y).....	4	4
Elements of Physical Chemistry (Chem. 103y).....	3	3
Reading and Speaking (Speech 1y).....	1	1
Electives (Social Sciences).....	3	3
Electives (Biological Sciences).....	4	4
	15	15

Senior Year

The curriculum of the first year of the School of Medicine. The student also may elect the fourth year's work from advanced courses offered in the College of Arts and Sciences.

Curriculum II

For students desiring to meet the minimum requirements for admission to a Class A Medical School.

Freshman Year

Survey and Composition I (Eng. 1y).....	3	3
College Algebra and Analytic Geometry (Math. 8f or 11f and 10s)	3	3
Invertebrate Morphology (Zool. 3f).....	4	—
Comparative Vertebrate Morphology (Zool. 4s).....	—	4
General Chemistry (Chem. 1y).....	4	4
Modern Language (French or German).....	3	3
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y).....	1	1
	18	18

Sophomore Year

General Physics (Phys. 1y).....	4	4
Elementary Organic Chemistry (Chem. 8Ay and 8By).....	4	4
Reading and Speaking (Speech 1y).....	1	1
Animal Histology (Zool. 12f).....	3	—
Introduction to Psychology (Psych. 1s).....	—	3
Survey and Composition II (Eng. 2f, 3s).....	3	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
	—	—
	17	17

Predental

Students entering the College of Arts and Sciences who desire to prepare themselves for the study of dentistry are offered the following two-year curriculum, which meets the predental requirements of the American Association of Dental Colleges. This curriculum may also be followed by the student if he desires to continue his college training and complete work for the Bachelor of Science degree.

Curriculum

Freshman Year

	Semester	
	I	II
Survey and Composition I (Eng. 1y).....	3	3
Reading and Speaking (Speech 1y).....	1	1
College Algebra and Analytic Geometry (Math. 8f or 11f and 10s).....	3	3
General Chemistry (Chem. 1y).....	4	4
Invertebrate Morphology (Zool. 3f).....	4	—
Comparative Vertebrate Morphology (Zool. 4s).....	—	4
Mechanical Drawing (Dr. 6 y).....	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y).....	1	1
	—	—
	17	17

Sophomore Year

Elementary Organic Chemistry (Chem. 8Ay and 8By).....	4	4
General Physics (Phys. 1y).....	4	4
Modern Language (French or German).....	3	3
Electives (Humanities, Social Sciences).....	4	4
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
	—	—
	17	17

COLLEGE OF COMMERCE

W. MACKENZIE STEVENS, *Dean*.

The University of Maryland is in an unusually favorable location for students of economics and commerce; for downtown Washington is only twenty-four minutes away in one direction, while the Baltimore business district is less than an hour in the other,—both cities with frequent transportation services to the University gates. Special arrangements are made to study commercial, manufacturing, exporting, and importing facilities and methods in Baltimore; and every assistance is given qualified students who wish to obtain a first hand glimpse of the far-flung economic activities of the National Government or utilize the libraries, government departments, and other facilities provided in Washington.

The College of Commerce provides professional training in economics and business administration for those who plan to become executives, teachers, or investigators in commercial, industrial, agricultural, or governmental economic enterprises.

While the curricula offered are technical and vocational, all require a thorough basic training in mathematics, statistics, English, and speech. The courses required in these fields are tool subjects needed for proper analysis, explanation, and interpretation of modern economic data.

Liberal allowance in every curriculum is made for other social sciences or for purely cultural non-vocational subjects, in order that students may acquire the breadth of vision needed by a present day economist, agricultural leader, or business executive.

The College of Commerce offers a selection of courses in each of the following seven fields of general and applied economics: General Economics, Agricultural Economics, Accounting, Finance, Marketing, Trade and Transportation, and Organization and Management.

Subject to the group and curricula requirements described subsequently, a student may, with the advice of his faculty adviser, elect individual courses from any or all of these groups in accordance with his needs.

Several standardized curricula are offered for the guidance of students in the selection of courses, namely: General Business, Accounting, Finance, Marketing and Sales Administration, Cooperative Organization and Administration, Agricultural Economics, and Commerce-Law. Unless a student wishes to take the combination Commerce-Law or the Agricultural Economics curriculum, he registers for the Lower Division General Business Curriculum for the freshman and sophomore years and decides at the beginning of his junior year whether he wishes to specialize in Accounting, Finance, Marketing, or Cooperation, or continue with a General Business training. Combinations to fit other vocational needs can be worked out by a different selection of courses in the junior and senior years.

Collegiate Chamber of Commerce

The Collegiate Chamber of Commerce provides students of business administration with an organization in which they may learn to work effectively with others in conferences and committees, and through which they may be brought into close contact with business men and trade associations in the types of business in which they are most interested. The Collegiate Chamber of Commerce maintains close relations with the Junior and Senior Chambers of Commerce in the various cities of Maryland and with the United States Chamber of Commerce in Washington. It is controlled by a board of directors elected by students of the College, two from each class and one from each student organization in the College. Membership is voluntary, but all students of business are urged to take part in its activities, for much of the training obtained is as valuable as that obtained in regular courses.

While general and social meetings are held periodically, most of the activities are centered in the following committees, each of which fosters study, business contacts, association with corresponding committees in city, state, and national chambers of commerce, discussion, field trips, and advancement of students interested in each field: Marketing, Public Relations, Civic Affairs, Community Affairs, Finance, Foreign Trade, Agricultural Affairs, and Industrial Affairs. A member of the faculty who is qualified in the special field in which a given committee is working serves as adviser. Additional committees are formed whenever a sufficient number of students desire them.

Beta Alpha Psi

Beta Alpha Psi is a national accounting fraternity which is made up of students majoring in Accounting who have maintained a high scholastic record.

Class of 1926 Award

The Class of 1926 of the School of Business Administration of the University of Maryland at Baltimore offers each year a gold key to the senior graduating from the College of Commerce with the highest average for the entire four-year course taken at the University of Maryland.

Student Advisers

Each student in the College of Commerce is assigned to a faculty adviser who, so far as practicable, is a specialist in the student's field of interest. A student who plans to become an accountant, for instance, has a professor of accounting as his adviser; one who is interested in banking as a career, a professor of finance; and those interested in marketing, advertising, foreign trade, industrial management, agricultural economics, and other subjects, specialists in these fields. Students are expected to see their advisers regularly about registration, curricular requirements, scholarship requirements, and such personal or university matters as may be desirable.

Business Curriculum*

	Semester	
	I	II
<i>Freshman Year</i>		
Survey and Composition (English 1y).....	3	3
General Mathematics (Math. 20y), (for students of Commerce)	3	3
Economic Geography (T. & T. 1f).....	3	—
Development of Commerce and Industry (T. & T. 4s).....	—	3
Reading and Speaking (Speech 1y).....	1	1
†Foreign Language, Political Science, or elective.....	3	3
Science (preferably Chemistry).....	3-4	3-4
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y, or 2y and 4y).....	1	1
	—	—
	17-18	17-18
<i>Sophomore Year</i>		
Expository Writing (Eng. 5f).....	2	—
Business English (Eng. 4s).....	—	2
Statistics (Stat. 14f and 15s).....	3	3
Principles of Economics (Econ. 51y).....	3	3
Principles of Accounting (Acct. 51y).....	4	4
Money and Banking (Finance 53s).....	—	3
Psychology for Commerce Students (Psych. 4f) or		
‡Elective (See suggested courses below).....	3	—
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y, or 6y and 8y).....	2	2
	—	—
	17	17

Suggested Elective Courses:

Government: American National (Pol. Sci. 1f or s)—3.
State and Local (Pol. Sci. 4f or s)—3.
Comparative (Pol. Sci. 7f or 8s)—2 each.

History: A Survey of Western Civilization (H. 1y)—6.
American (H. 2y)—6.
England and Great Britain (H. 3y)—6.

Social Science: Introduction (Soc. Sci. 1y)—6. (Elect in Freshman year only.)

Sociology: Principles (Soc. 1f or s)—3.

*See also Commerce-Law and Agricultural Economics curricula which are described on subsequent pages.

†It is important that students take foreign language if they expect to pursue graduate work later or enter foreign trade work.

‡Special attention is called to the elective in Advanced Speech (2), which must be taken in sophomore, junior, or senior year.

Psychology: For Students of Commerce (Psych. 4f)—3; or Applied (Psych. 3s)—3.
 Introduction (Psych. 1f or s)—3.
 Philosophy: Introduction (Phil. 1f or s)—3.
 Logic (Phil. 22f)—3.
 Ethics (Phil. 23f)—3.
 Speech: Advanced (3f and 4s)—2 each.
 Extempore (9f and 10s)—1 each.
 English: Survey of American Literature (Eng. 7f and 8s)—3 each.
 Expository Writing continued (Eng. 6s)—2.
 College Grammar (Eng. 14f)—3.
 Science: Introductory courses in Chemistry, Botany, Geology, Physics, or Zoology—3, 4, 6, 8.
 Language: French, German, Spanish, or Italian—6.
 Drawing: Mechanical (Dr. 6y)—2.

General Business Curriculum

	Semester	
	I	II
<i>Junior Year</i>		
Corporation Finance (Finance 111f).....	3	—
Principles of Marketing (Mkt. 101f).....	3	—
Industrial Management (O. & M. 121s).....	—	3
Business Law I (O. & M. 101s).....	—	3
Advanced Accounting (Acct. 101f, 102s).....	3	3
Electives (See suggested courses below).....	6	6
	15	15
<i>Senior Year</i>		
Business Law II (O. & M. 102f).....	3	—
Financial Analysis and Control (Finance 199s).....	—	3
Electives (See suggested courses below).....	12	12
	15	15

Suggested Elective Courses

Economics of Cooperative Organization (Econ. 161f)—3.	Investments (Finance 115f)—3.
Insurance (Finance 141f)—3.	Labor Economics (Econ. 130f)—3.
Land Economics (A. E. 100f)—3.	Principles of Advertising (Mkt. 109f)—3.
Principles of Foreign Trade (T. & T. 101f)—3.	Social and Economic History of the U. S. (H. 104f, 105s)—6.
Transportation (T. & T. 111f)—3.	Principles of Public Administration (Pol. Sci. 111f)—3.
Credits and Collections (Finance 125f)—3.	Speech electives are recommended for either semester.
Public Finance (Finance 106f)—3.	

Economics of Consumption (Econ. 136s)—3.	Psychological Aspects of Industrial Production (Psych. 160f)—3.
Banking Principles and Practices (Finance 121s)—3.	Psychology of Personnel (Psych. 161s)—3.
Salesmanship and Salesmanagement (Mkt. 105s)—3.	Legislation and Legislatures (Pol. Sci. 124s)—3.
Public Utilities (Econ. 145s)—3.	Advanced Writing (Eng. 100f and s)—2.
Social Control of Business (Econ. 152s)—3.	Real Estate (Finance 151s)—3.
Psychology in Advertising and Selling (Psych. 141s)—3.	

Accounting Curriculum

	Semester	
	I	II
<i>Junior Year</i>		
Corporation Finance (Finance 111f).....	3	—
Advanced Accounting (Acct. 101f, 102s).....	3	3
Cost Accounting (Acct. 121f, 122s).....	2	2
Business Law I (O. & M. 101s).....	—	3
Electives (See suggested courses below).....	7	7
	15	15
<i>Senior Year</i>		
Business Law II (O. & M. 102f).....	3	—
Auditing Theory and Practice (Acct. 171f, 172s).....	2	2
Specialized Accounting (Acct. 181f, 182s).....	3	3
Financial Analysis and Control (Finance 199s).....	—	3
Electives (See suggested courses below).....	7	7
	15	15

Suggested Elective Courses:

*Income Tax Procedure (Acct. 161f)—3.	*Advanced Business Law (O. & M. 103s)—2.
Principles of Foreign Trade (T. & T. 101f)—3.	*C. P. A. Problems (Acct. 186s)—3.
Transportation (T. & T. 111f)—3.	Industrial Management (O. & M. 121s)—3.
Industrial Combination (Econ. 153f)—3.	Banking Principles and Practices (Finance 121s)—3.
Investments (Finance 115f)—3.	Public Utilities (Econ. 145s)—3.
Principles of Marketing (Mkt. 101f)—3.	Accounting Apprenticeship (Acct. 149)—0.

*Essential for students who plan to prepare for a career in public accounting.

Marketing and Sales Administration Curriculum

	Semester	
	I	II
<i>Junior Year</i>		
Corporation Finance (Finance 111f).....	3	—
Principles of Marketing (Mkt. 101f).....	3	—
Principles of Advertising (Mkt. 109f).....	3	—
Economics of Cooperative Organization (Econ. 161f).....	3	—
Salesmanship and Salesmanagement (Mkt. 105s).....	—	3
Business Law I (O. & M. 101s).....	—	3
Electives (See suggested courses below).....	3	9
	15	15
<i>Senior Year</i>		
Business Law II (O. & M. 102f).....	3	—
Marketing Research and Market Policies (Mkt. 199s).....	—	3
Financial Analysis and Control (Finance 199s).....	—	3
Electives (See suggested courses below).....	12	9
	15	15
Suggested Elective Courses:		
Credits and Collections (Finance 125f)—3.		Retail Store Management and Merchandising (Mkt. 119s)—3.
Principles of Foreign Trade (T. & T. 101f)—3.		Technique of Export and Import Trade (T. & T. 121s)—3.
Transportation (T. & T. 111f)—3.		Marketing of Farm Products (A. E. 102s)—3.
Consumer Financing (Finance 105f)—3.		Economics of Consumption (Econ. 136s)—3.
Psychological Problems in Market Research (Psych. 101f)—3.		Psychology in Advertising and Selling (Psych. 141s)—3.
Insurance (Finance 141f)—3.		Purchasing Technique (Mkt. 115s)—3.
Land Economics (A. E. 100f)—3.		Real Estate (Finance 151s)—3.
Labor Economics (Econ. 130f)—3.		Food Products Inspection (A. E. 105s)—2.
Marketing Internship (Mkt. 149)—1-3.		Industrial Management (O. & M. 121s)—3.

The list of potential electives for students interested in special phases of advertising and marketing is too great for inclusion here. A student who is training for some position in the garment trade, department store work, or other classes of retailing, might wish to substitute, for instance, Textiles (H. E. 71f), Advanced Textiles (H. E. 171f), or Merchandise Display (H. E. 125s). Advertising students may wish to elect courses in Art or English in the College of Arts and Sciences. Those interested in the marketing and installation of mechanical or electrical equipment will wish to elect a number of courses in the College of Engineering. Persons planning to engage in marketing of agricultural products may choose courses in the College of Agriculture.

Finance Curriculum

	Semester	
	I	II
<i>Junior Year</i>		
Corporation Finance (Finance 111f).....	3	—
Advanced Accounting (Acct. 101f, 102s).....	3	3
Banking Principles and Practices (Finance 121s).....	—	3
Business Law I (O. & M. 101s).....	—	3
Electives (See suggested courses below).....	9	6
	15	15
<i>Senior Year</i>		
Business Law II (O. & M. 102f).....	3	—
Investments (Finance 116f).....	3	—
Financial Analysis and Control (Finance 199s).....	—	3
Electives (See suggested courses below).....	9	12
	15	15

Suggested Elective Courses:

Public Finance (Finance 106f)—3.	Public Utilities (Econ. 145s)—3.
Credits and Collections (Finance 125f)—3.	Agricultural Finance (A. E. 104s)—3.
Insurance (Finance 141f)—3.	Financial Internship (Finance 149)—1-3.
Land Economics (A. E. 101f)—3.	Real Estate (Finance 151s)—3.
Consumer Financing (Finance 105f)—3.	Investment Banking (Finance 116s)—3.
Stock and Commodity Exchanges (Finance 118f)—3.	International Finance (Finance 129s)—3.
Economics of Cooperative Organization (Econ. 161f)—2	Social Control of Business (Econ. 152s)—3.

Agricultural Economics Curriculum*

	Semester	
	I	II
<i>Freshman Year</i>		
Survey and Composition (Eng. 1y).....	3	3
General Mathematics (Math. 20y), (for students of Commerce).....	3	3
Agricultural Industry and Resources (A. E. 1f).....	3	—
Farm Organization (A. E. 2s).....	—	3
Biology (Bot. 1f and Zool. 1s, or Zool. 2f and Bot. 3s), Geology (Geol. 1f), or Foreign Language.....	3-4	3-4
General or Introductory Chemistry (Chem. 1y or 3y).....	4-3	4-3
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y, or 2y and 4y).....	1	1
	17-18	17-18

*Students registered in this curriculum should satisfy the Professor of Agricultural Economics that they have had adequate farm experience before entering the junior year.

	Semester	
	I	II
<i>Sophomore Year</i>		
Expository Writing (Eng. 5f, 6s).....	2	2
Reading and Speaking (Speech 1y).....	1	1
Statistics: Elementary Statistics (Stat. 14f).....	3	—
Economic Statistics (Stat. 15s).....	—	3
Principles of Economics (Econ. 51y).....	3	3
Money and Banking (Finance 53s).....	—	3
Principles of Accounting (Acct. 51y).....	4	4
Agriculture Elective	2-3	—
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y, or 6y and 8y).....	2	2
	—	—
	17-18	18

<i>Junior Year</i>		
Agricultural Economics (A. E. 100f).....	3	—
Marketing of Farm Products (A. E. 102s).....	—	3
Business Law I (O. & M. 101s).....	—	3
Farm Management (A. E. 108f).....	3	—
Economics of Cooperative Organization (Econ. 161f).....	3	—
Corporation Finance (Finance 111f).....	3	—
†Agricultural Finance (A. E. 104s).....	—	3
†Land Economics (A. E. 110f).....	3	—
Prices (A. E. 106s).....	—	3
†Electives	1	4
	—	—
	16	16

<i>Senior Year</i>		
Business Law II (O. & M. 102f).....	3	—
Cooperation in Agriculture (A. E. 103f).....	3	—
Financial Analysis and Control (Finance 199s).....	—	3
Contemporary Economic Theory (Econ. 191s).....	—	3
‡Research Problems (A. E. 109y).....	1	1
Economics of Consumption (Econ. 136s).....	—	3
Rural Sociology (Soc. 101f).....	2	—
†Electives	7	6
	—	—
	15-16	15-16

†Two hours of speech elective must be taken during the sophomore, junior, or senior years. A. E. 110f and A. E. 104s may be postponed until the senior year if this will facilitate the selection of useful electives during the last two years.

‡Elective for honor students only.

COMBINED PROGRAM IN COMMERCE AND LAW

Students who wish to combine commercial and legal studies to obtain both Bachelor of Science and Bachelor of Laws degrees may do so by selecting their courses in such a way as to comply with all of the group and specific requirements of the College of Commerce in three years, and then completing the 126 hours required for graduation from this college by courses taken in the University of Maryland School of Law at Baltimore.

During the first three years, students will be registered in the College of Commerce. In the fourth year and thereafter, unless the four-year alternative program is taken, they will be registered in the School of Law; but they must forward copies of their study lists to the office of the Dean of Commerce at the beginning of each semester of the fourth year. At the end of the fourth year, the degree of Bachelor of Science may be awarded in the College of Commerce upon the recommendation of the Dean of the Law School. The degree of Bachelor of Laws will be awarded upon satisfactory completion of the entire program.

Curriculum

	Semester	
	I	II
<i>Freshman Year</i>		
Survey and Composition (Eng. 1y).....	3	3
General Mathematics (Math. 20y), (for Commerce students).....	3	3
Economic Geography (T. & T. 1f).....	3	—
Development of Commerce and Industry (T. & T. 4s).....	—	3
Reading and Speaking (Speech 1y).....	1	1
American National Government (Pol. Sci. 1f).....	3	—
State and Local Government (Pol. Sci. 4s).....	—	3
English History (H. 3y).....	3	3
R. O. T. C. or Physical Education (Phys. Ed. 1y, or 2y and 4y).....	1	1
	—	—
	17	17

<i>Sophomore Year</i>		
Expository Writing (Eng. 5f).....	2	—
Business English (Eng. 4s).....	—	2
Principles of Economics (Econ. 51y).....	3	3
Principles of Accounting (Acct. 51y).....	4	4
Statistics (Stat. 14f, 15s).....	3	3
Money and Banking (Finance 53s).....	—	3
Advanced Public Speaking (Speech 3f).....	2	—
Comparative Government (Pol. Sci. 7f).....	2	—
R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y, or 6y and 8y).....	2	2
	—	—
	18	17

Junior Year

Corporation Finance (Finance 111f).....	3	—
†Financial Analysis and Control (Finance 199s).....	—	3
Principles of Marketing (Mkt. 101f).....	3	—
*Industrial Management (O. & M. 121s).....	—	3
*Cost Accounting (Acct. 121f, 122s).....	2	2
*Auditing (Acct. 171f, 172s).....	2	2
*Advanced Accounting (Acct. 101f, 102s).....	3	3
*Argumentation (Speech 11f, 12s).....	1	1
Extempore Speaking (Speech 9f, 10s).....	1	1
	—	—
	15	15

Senior Year

First year of regular Law School; or, preferably, graduation from the four-year curriculum in Commerce-Law before entering Law School. In the latter case, Business Law I (O. & M. 101s) is substituted for Financial Analysis and Control (Finance 199s) in the last half of the junior year, and Finance 199s is taken in the senior year. The additional requirements are shown below:

	Semester	
	I	II
†Financial Analysis and Control (Finance 199s).....	—	3
Social Control of Business (Econ. 152s).....	—	3
Business Law II (O. & M. 102f).....	3	—
Electives (See suggested courses below).....	12	9
	—	—
	15	15

Suggested Elective Courses:

Investments (Finance 115f)—3.	Principles of Foreign Trade (T. & T. 101f)—3.
Economics of Cooperative Organization (Econ. 161f)—3.	Psychology for Students of Commerce (Psych. 4f)—3.
Labor Economics (Econ. 130f)—3.	‡Specialized Accounting (Acct. 181f)—3.
Public Finance (Finance 106f)—3.	‡Income Tax Procedure (Acct. 161f)—3.
Insurance (Finance 141f)—3.	Industrial Combination (Econ. 153f)—3.
Principles of Public Administration (Pol. Sci. 111f)—3.	Transportation (T. & T. 111f)—3.
History of Political Theory (Pol. Sci. 131f)—3.	Speech electives are recommended for either semester.
Credits and Collections (Finance 125f)—3.	

*Recommended for students registered in this curriculum, but other elective courses in business administration and economics may be substituted provided all group requirements are met.

†Preferably taken in senior year if the four-year curriculum is followed.

‡Essential for students who wish to prepare for C. P. A. examinations.

Advanced Banking Principles and Practices (Finance 121s)—3.	Psychology in Advertising and Selling (Psych. 141s)—3.
Economics of Consumption (Econ. 136s)—3.	Psychology of Personnel (Psych. 161s)—3.
Contemporary Economic Theory (Econ. 191s)—3.	‡Specialized Accounting (Acct. 182s)—3.
Public Utilities (Econ. 145s)—3.	‡C. P. A. Problems (Acct. 186s)—3.
Real Estate (Finance 151s)—3.	‡Advanced Business Law (O. & M. 103s)—2.
Legislation and Legislatures (Pol. Sci. 124s)—3.	Advanced Writing (Eng. 100f and s)—2 each.
Recent Political Theory (Pol. Sci. 132s)—3.	Constitutional History of the United States (H. 108f, 109s)—6.
Agricultural Finance (A. E. 104s)—3.	

COOPERATIVE ORGANIZATION AND ADMINISTRATION

Cooperative organizations among farmers, consumers, and business men are taking an increasingly important part in modern economic life. The managerial problems of cooperatives include not only most of those arising in private enterprises in similar kinds of business, but also additional problems brought about by important differences in ownership relations between the two types of business. The form of ownership and control and the objectives of a cooperative are different from those of its private competitor to such a degree that training and experience suitable for executive responsibility in a private business are not adequate for cooperative leadership.

A student intending to prepare himself for positions with cooperative enterprises has two alternatives: (a) To register in one of the specialized curricula such as Finance, Marketing, Accounting, or Agricultural Economics, in accordance with the type of work he wishes to do with cooperatives, and then use electives to obtain as much cooperative theory and practice as practicable, or (b) To register for the curriculum in Cooperative Organization and Administration that follows, and then elect courses that will give him a reasonably adequate technical knowledge of the type of activity with which he plans to associate himself. For instance, a person intending to work with farmer cooperatives should have some courses in agriculture; a student of consumer cooperation should elect Economics of Consumption (Econ. 136s), Retail Store Management and Merchandising (Mkt. 119s), and Purchasing Technique (Mkt. 115s); and a person intending to specialize in the credit union field should elect several courses in finance.

Since every student interested in cooperation as a career should have the basic training provided in the lower division general business curriculum in any case, he need not make a definite decision until the beginning of his junior year, though students are urged to use the electives provided during

‡Essential for students who wish to prepare for C. P. A. examinations.

the first two years to obtain so far as possible the background subjects likely to be needed.

Practical experience is exceedingly important. Students intending to work with agricultural cooperatives, should have farm experience, for example, and all students who plan to make cooperative organization and management a career should arrange for practical work with cooperatives as early as may be practicable. The course entitled "Internship in Cooperation," which involves experience with cooperatives, should be taken during the summer between the junior and senior years unless a different period of internship is provided for.

Washington is the national headquarters of the agricultural cooperatives of this country, and arrangements have been made for properly equipped students to have cooperative experience by means of close working arrangements maintained with the National Cooperative Council.

Unusual facilities for the study of cooperatives of all types are also available in the government agencies and libraries of Washington, and special arrangements will be made for properly qualified students to make the most of the opportunity for special study thus offered.

The following courses are suggested for the junior and senior years, though substitutions will be permitted whenever the student's adviser believes they will improve the training for a particular type of cooperative work.

Cooperative Curriculum

<i>Junior Year</i>	<i>Semester</i>	
	<i>I</i>	<i>II</i>
Business Law I (O. & M. 101s).....	—	3
Corporation Finance (Finance 111f).....	3	—
Principles of Marketing (Mkt. 101f).....	3	—
Industrial Management (O. & M. 121s).....	—	3
Advanced Accounting (Acct. 101f, 102s).....	3	3
*Agricultural Finance (A. E. 104s).....	—	3
*Transportation (T. & T. 111f).....	3	—
Economics of Cooperative Organization (Econ. 161f).....	3	—
Economics of Consumption (Econ. 136s).....	—	3
	15	15

†Internship in Cooperation (O. & M. 149) (During Summer)..... 1-3

*Suggested electives for students who wish general training and do not have a particular type of cooperation or cooperative activity in mind.

†Application for this course must be made not later than March 1.

<i>Senior Year</i>	<i>Semester</i>	
	<i>I</i>	<i>II</i>
Business Law II (O. & M. 102f).....	3	—
Financial Analysis and Control (Finance 199s).....	—	3
Agricultural Cooperation (A. E. 103f).....	3	—
*Retail Store Management and Merchandising (Mkt. 119s), or		
*Purchasing Technique (Mkt. 115s).....	—	3
*Consumer Financing (Finance 105f).....	3	—
*Land Economics (A. E. 111f).....	3	—
*Contemporary Economic Theory (Econ. 191s).....	—	3
*Auditing Theory and Practice (Acct. 171f, 172s).....	2	2
Seminar in Cooperative Administration (O. & M. 161s).....	—	3
Extempore Speaking (Speech 9f, 10s).....	1	1
	15	15

SPECIAL CURRICULA

A student who has completed the basic first two years of Commerce with an average grade of B may, with the approval of his adviser, petition for a special curriculum if he can demonstrate to the satisfaction of the Dean that the courses needed for his intended vocation are different from those offered in any of the foregoing standardized curricula. If the petition be granted, a special curriculum designed to fit the specific needs of such a student may be set up and made a part of his permanent record. Thereafter, the requirements for graduation of this student will be as set forth in his special curriculum. All such special curricula are subject to the scholarship, group, and specific course requirements of the College.

Group Requirements For Graduation

A student who has met all entrance requirements may be granted the degree of Bachelor of Science upon the satisfactory completion of not fewer than 120 semester hours, not including the six hours of basic Military Science required of all able-bodied men students, or the six hours of physical education for women and for such men as are excused from Military Science.

Of these 120 credits, not fewer than 48 must be in general or applied economics, that is, in courses offered in the departments of Economics, Business Administration, or Agricultural Economics, and not fewer than 48 in subjects not offered by these departments; provided that courses in principles of economics may be considered to be in either category.

The following minimum requirements in each of the groups specified must be completed before graduation, except as indicated in a particular curriculum.

1. English and Speech—fourteen credits.
2. Mathematics and Natural Science—twelve credits.

*Suggested electives for students who wish general training and do not have a particular type of cooperation or cooperative activity in mind.

3. Military Science or Physical Education—six credits.
4. Social Science and Foreign Languages—not fewer than twelve hours are required in psychology, sociology, political science, and history, and considerably more than these are recommended; provided that electives in foreign languages or other humanities may be substituted for six hours of this requirement.
5. Economics—twelve credits.
6. Organization and Management—six credits.
7. Accounting—eight credits.
8. Marketing—three credits.
9. Finance—nine credits.
10. Trade and transportation—six credits.
11. Additional group requirements as specified in each curriculum.

Scholarship Requirements

To be eligible to enter courses ordinarily carried in the junior year, a student enrolled in the College of Commerce must have an average grade as high as C in not fewer than 58 credit hours, not including the six hours of basic Military Science required of all able-bodied men students, or the six hours of physical education for women and for such men as are excused from Military Science. To be awarded the baccalaureate degree from this college, he must have (1) a grade as high as C in general and applied economics courses aggregating not fewer than 48 semester hours, and (2) a general average grade as high as C.

Choice Of Electives And Extra-Curricular Activities

Business, agricultural, and industrial leaders now require a much broader educational background than that provided by vocational courses in economics and administration alone. Group requirements have been set up accordingly which demand that not fewer than 48 semester credit hours shall be from non-economics courses. A considerably larger number of semester hours may be elected from non-economics subjects by a student who is willing to forego a proportionate number of specialized courses in economics and business administration.

Other social sciences, such as sociology, history, political science, and applied psychology are useful in furnishing the broad background in social sciences needed by any student of economics; and these subjects tend to make him a more useful citizen. Logic, ethics, and other philosophy courses open up a new world of intellectual pleasure to the student; and training provided by such subjects in abstract thinking is also useful vocationally. Courses in music and art may serve as a welcome diversion from vocational courses; and the social and extra-curricular development that music facilitates is desirable for students of economics or business.

Commerce students should diversify their non-economic selections so as to obtain the broadest possible general education within the time at their disposal. While the freedom of choice offered through electives is sufficient

to enable a student to study whatever cultural subjects or vocational techniques he needs anywhere in the University, he who wishes to elect as much as a minor in any one department outside the College of Commerce must secure the approval of the head of that department to his study list, in order that the selections may be effectively adapted to the vocational or cultural objectives sought.

Extra-curricular activities are recommended to students of this college whenever the physical and mental capacity of the individual student and available free time permit. Excellence in such activities often has a definite value in procuring business positions at graduation; and experience gained in this way is frequently invaluable in later life.

Additional electives above the curriculum requirements in either vocational or non-economics courses are encouraged whenever a student can demonstrate the capacity to carry additional subjects satisfactorily. Grades received in previous work will be the determining factor for decision as to extra student load in each case. Students who do not average better than C will not be permitted to carry additional courses beyond the curriculum requirements.

COLLEGE OF EDUCATION

WILLARD S. SMALL, *Dean*.

The College of Education meets the needs of the following classes of students: (1) undergraduates preparing to teach the cultural and the vocational studies in high schools, preparatory schools, and vocational schools; (2) students who will enter higher institutions to prepare for work in specialized educational and institutional fields; (3) students preparing for educational work in the trades and industries; (4) students preparing to become home demonstrators, girls' club leaders, community recreation leaders, and (in cooperation with the Department of Sociology) social workers; (5) students whose major interest is in other fields, but who desire courses in education for their informational and cultural values; (6) graduate students preparing for teaching positions requiring the Master's degree and for positions as high school principals, elementary school principals, educational supervisors, attendance officers, and school administrators.

The Summer Session, although organically distinct from the College of Education, is administered by the Dean of the College of Education, and is in effect an administrative division of the College.

Facilities

In addition to the general facilities offered by the University, certain important supplementary facilities are available.

Supervised Teaching. Opportunity for supervised teaching under competent critic teachers is provided by arrangement with the school authorities of Prince Georges, Howard, and Montgomery Counties, and of the District of Columbia.

Observation. Observation of teaching is conducted in Washington and in nearby Maryland schools. The number, variety, and nearness of these schools provide ample and unusual opportunities for observation of actual classroom situations.

Other Facilities in Washington. The Library of Congress, the Library of the U. S. Office of Education, and the special libraries of other Government offices are accessible. The information services of the National Education Association, the American Council on Education, the U. S. Office of Education, and of other institutions, public and private, are available to students.

Requirements for Admission

The requirements for admission to the College of Education are in general the same as for the other colleges of the University. See Section I, Entrance.

Candidates for admission whose high school records are consistently low are strongly advised not to seek admission to the College of Education.

Guidance in Registration

At the time of matriculation each student is assigned to a member of the faculty who acts as the student's personal adviser. Choice of subjects the student will prepare to teach should be made not later than the beginning of the sophomore year with the advice and approval of the appropriate adviser.

It is advisable for students who purpose to teach (except Vocational Agriculture) to register in the College of Education, in order that they may have continuously the counsel and guidance of the faculty which is directly responsible for their professional preparation. It is permissible, however, for a student to register in that college which in conjunction with the College of Education offers the majority of the courses he will pursue in satisfying the requirements of the curriculum he elects.

Students in other colleges desiring to elect an education curriculum should consult with the Dean of the College of Education *at the beginning of the sophomore year* in order to plan satisfactorily their subsequent programs. Adjustments may be made as late as the beginning of the junior year. *It is practically impossible to make adjustments later than that on account of the sequence of professional subjects in the junior and senior years.*

Admission of Normal School Graduates

Graduates of the two- and three-year curricula of Maryland Normal Schools and other accredited normal schools whose records give evidence of the ability and character essential to teaching will be admitted to advanced standing and classified provisionally in appropriate classes. Graduates of the two-year normal school curriculum, in most cases, may satisfy the requirements for the degree of Bachelor of Science in Elementary Education by attendance for two full college years; graduates of the three-year curriculum, by attendance for one full college year.

Those who wish to satisfy the requirements for certification as high school teachers need more time. The amount of time required is not uniform, but depends upon the high school subjects to be taught and the individual ability of the student.

Sophomore Status

The "Introduction to Teaching" scheduled for the sophomore year is an orientation course. It is designed with the twofold purpose of giving students a view of the teacher's job and of testing the aptitude and fitness of students for teaching. Admission to this course is based upon the following: (1) completion of at least 30 semester hours of freshman work with an average grade as high as C; and (2) passing of series of tests which are designed to determine the student's preparation for the special demands of this course.

Junior Status

The first two years of college work are preparatory to the professional work of the junior and senior years. Students who, in the first two years,

by reason of temperament, health, industry, and scholastic progress, give promise of becoming successful teachers are encouraged to continue in the curricula of the College of Education; those who, by reason of health deficiencies, of weakness in oral and written English, of unfavorable personal traits, or of scholastic deficiency, are unlikely to succeed as teachers are advised to transfer to other fields.

To be eligible for junior status a student must have completed 64 semester hours of freshman-sophomore courses with an average grade of C or better.

Professional Courses

The professional courses recognized by the State Department of Education for certification are given only in the junior and senior years. The minimum requirement for these is 16 semester hours, of which the following are prescribed: Educational Psychology, Technic of Teaching, Observation of Teaching, Special Methods, and Supervised Teaching.

To be eligible to enter the professional courses, a student must have attained junior status as defined above. Continuance in such courses will be contingent upon the student's remaining in the upper four-fifths of his class in subsequent semester revisions of class standing.

From the offerings of Education, the District of Columbia requirement of 24 semester hours of professional courses may be fully met.

Certification of High School Teachers

The State Department of Education certifies to teach in the approved high schools of the State only graduates of approved colleges who have satisfactorily fulfilled subject-matter and professional requirements. Specifically it limits certification to graduates who "rank academically in the upper four-fifths of the class and who make a grade of C or better in practice teaching."

Degrees

The degrees conferred upon students who have met the conditions prescribed for a degree in the College of Education are Bachelor of Arts and Bachelor of Science. Upon completion of 128 credits in conformity with the requirements specified under "Curricula" and in conformity with general requirements of the University, the appropriate degree will be conferred.

Curricula

The curricula of the College of Education, described in detail in the following pages, are designed to prepare high school teachers of the academic and scientific subjects, the special subjects, and the vocational subjects under the provisions of the Federal Vocational Education Acts.

The specifications for majors and minors, under "Arts and Science Education", satisfy the requirements of the State Department of Education in regard to "the number of college credits required in any two or more subjects which are to be placed on a high school teacher's certificate." The curricula for the special subjects cover all State Department requirements. The curricula for the vocational subjects meet the objectives set up

in the Federal Acts and in the interpretations of the Office of Education and of the State Board of Education. (For Agricultural Education see College of Agriculture, page 73.)

In the Arts and Science Education curriculum one may qualify for the degree either of Bachelor of Arts or Bachelor of Science, depending upon the major subject. The other curricula lead to the degree of Bachelor of Science.

The general and special requirements of each curriculum are shown in the following descriptions.

ARTS AND SCIENCE EDUCATION

Students electing this curriculum may register in the College of Education or in the College of Arts and Sciences. Students will be certified for graduation only upon fulfillment of all the requirements of this curriculum.

General Requirements

In addition to Military Science or Physical Education, required of all students in the University, the following requirements must be fulfilled by all candidates for degrees in this curriculum, normally by the end of the sophomore year:

- (1) Survey and Composition I (Eng. 1y) and Survey and Composition II (Eng. 2f and 3s), 12 semester hours. 12
- (2) Reading and Speaking (Speech 1y), 2 semester hours. 2
- (3) Two years of foreign language, if the student enters with less than three years of foreign language; one year, if he enters with three years. No foreign language is required of students who enter with four or more years of foreign language. 12
- (4) Twelve semester hours of history and the social sciences. 12
- (5) Twelve hours of natural science or of natural science and mathematics. 12

Curriculum

	Semester	
	I	II
<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
Reading and Speaking (Speech 1y).....	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y).....	1	1
*Foreign Language.....	3	3
Science (Biological or Physical).....	3-4	3-4
From the following groups:		
History, Social Sciences, Mathematics, Science, Foreign Language, Music, Art, Physical Education.....	4-3	4-3
	15-16	15-16

*Except students entering with four or more units of language.

	Semester	
	I	II
<i>Sophomore Year</i>		
(See "Sophomore Status," p. 133.)		
Introduction to Teaching (Ed. 2f, 3s).....	2	2
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
Survey and Composition II (Eng. 2f and 3s).....	3	3
†Foreign Language.....	3	3
Electives	7-8	7-8
	—	—
	17-18	17-18
<i>Junior Year</i>		
(See "Professional Courses," p. 134)		
Educational Psychology (Psych. 10f).....	3	—
Technic of Teaching (Ed. 5s).....	—	2
Observation of Teaching (Ed. 6s).....	—	1
Development of American Educational Institutions (Ed. 100f)	2	—
Special Methods (Ed. 120s; 122s; 124s; 126s; 128s).....	—	2
Electives	11	11
	—	—
	16	16
<i>Senior Year</i>		
‡Supervised Teaching (Ed. 139f or s).....	2 or	2
The High School (Ed. 103s).....	—	3
or		
The Junior High School (Ed. 110f).....	3	—
Electives	11	11
	—	—
	16	16

Specific Requirements

Each student is expected to prepare for the teaching of at least two high school subjects in accordance with the certification requirements of the State Department of Education (By-law 30 revised). These are designated as major and minor subjects, with a requirement of from 28 to 36 semester hours of credit for a major and from 20 to 24 hours for a minor. If it is deemed advisable for a student to prepare for the teaching of three high school subjects, the requirement for a major may be modified at the discretion of the Dean to permit the pursuit of three subjects to the extent required for State certification. Semester hour requirements are detailed below.

No student who has not met all previous requirements will be permitted to do practice teaching.

†For students entering with less than three units of language.
‡See Course description, p. 279.

<i>English.</i> A major in English requires 36 semester hours as follows:	
Survey and Composition I and II.....	12 semester hours
Shakespeare (Eng. 11f or 12s).....	3 semester hours
American Literature	6 semester hours
Electives	15 semester hours
	—
	36

A minor in English requires 26 semester hours. It includes the 21 hours prescribed for the major and 5 hours of electives.

Electives must be chosen from a selected list of courses with the advice and approval of the instructor in "English in the High School." The standards governing selection are those suggested by the National Council of Teachers of English.

Survey and Composition I and II must be completed by the end of the junior year.

Social Sciences. For a major in this group, 30 semester hours are required, of which at least 18 hours must be history including 6 hours in American history and 6 in European history. Six of the 18 hours must be in advanced courses. For a minor in the group, 24 hours are required, of which 18 are the same as specified above, and 6 of which must be in advanced courses. In every case the selection of courses must be approved by the head of the department in which the largest portion of the work is to be elected.

History	18 semester hours
Economics or Sociology.....	6 semester hours
Electives	6 semester hours

For a minor, the same requirements less the electives.

Required courses in History are as follows: Modern European History, American History, and Ancient History. These must be completed by the end of the junior year.

Modern Languages. For a major in Modern Languages 30 semester hours are required; for a minor 24 semester hours (exclusive of the introductory course).

At least 18 hours of a major or minor in modern language must be completed by the end of the junior year.

A major or minor in French must include French 5s, 9y, 10y, and two courses of the 100 group.

A major or minor in Spanish must include Spanish 5s, 6y, and two courses of the 100 group.

A major or minor in German must include German 5s, 10y, and two courses of the 100 group.

* See paragraphs on special requirements for major in English in Section III on English Language and Literature, p. 302.

Mathematics. Twenty-eight semester hours are required for the major. The following sequence is recommended: Math. 7f, 18y, 21f, and 22s in the freshman year; Math 19y and 23y in the sophomore year; Math. 111f, 112s, 141f, and 122s in the junior and senior years.

Twenty semester hours are required for the minor. The following course sequence is advised: Math. 7f, 11f, and 10s in the freshman year; Math. 24y and 19y in the sophomore year; and Math. 111f and 122s in the junior and senior years.

Students who pass an examination in solid geometry may be excused from Math. 7f. For all majors and minors in mathematics, Ed. 128s and Ed. 135f are indicated.

Mathematics-Physics. This major consists of 18 hours in mathematics and 18 hours in physics. The normal sequence of courses is Math. 21f, 7f, 22s, 23y, 111f, and 122s; Phys. 1y and 103y.

Students who pass an examination in solid geometry may be excused from Math. 7f.

Chemistry 1y is required as a supporting course to this major. Ed. 128s, 135f, and 137s should be taken.

If a minor in general science is offered in connection with this major, a total of 40 hours in the natural sciences should be presented.

Science. In general science a major and minor are offered, consisting of 40 and 30 hours respectively, each including elementary courses in chemistry, physics, and biology (zoology and botany). The major must include one of the following course sequences.

Sequences I and II, emphasizing chemistry or physics:

Freshman year: *Math. 11f (3) or 21f (4); 10s (3) or 22s (4); Chem. 1y (8).

Sophomore year: Bot. 1f (4); Phys. 1y (8).

Junior and senior years: Phys. 103y (6) or Chem. 12y (6), and 103y (6); Zool. 3f (4) and 4s (4); Bact. 1A (2).

Sequence III, emphasizing zoology:

Freshman year: Zool. 3f (4) and 4s (4); Chem. 1y (8).

Sophomore year: Zool. 12f (3) and 6s (3); Bot. 1f (4).

Junior and senior years: Zool. 103f and s (6); Phys. 3y (6) or 1y (8); Bact. 1A (2).

Sequence IV, emphasizing botany:

Freshman year: Zool. 3f (4) and 4s (4); Chem. 1y (8).

Sophomore year: Bot. 1f (4) and 2s (4); Phys. 3y (6) or 1y (8).

Junior and senior years: Plt. Phys. 101f (4) and 102s (3); Bact. 1A (2).

*Mathematics credits are not counted in the total number of hours required for the science major.

Minors of twenty semester hours are offered in chemistry, in physics, and in biological science. A minor in biology must include the basic courses in zoology and botany and be supported by the elementary course in chemistry. A minor in physics must be supported by the elementary course in chemistry, and a minor in chemistry by the elementary course in physics. For students whose main interest is biology, Ed. 126s and Ed. 136s are indicated, as are Ed. 126s and Ed. 137s for those who are chiefly interested in teaching general science, physics, or chemistry.

If a major in general science is accompanied by a minor in chemistry, physics or biology, the same credits may be counted towards both provided that they number not fewer than 52 semester hours in natural sciences.

AGRICULTURAL EDUCATION

(See College of Agriculture, page 79.)

COMMERCIAL EDUCATION

The entrance requirements for the curriculum in Commercial Education are as follows: English 3 units; Algebra 1 unit; Science 1 unit; History 1 unit; Stenography 2 units; Typewriting 1 unit; Bookkeeping 1 unit; elective 5 units.

The Commercial Education curriculum includes a solid foundation of economics, social science and history, accounting and business administration subjects, adequate courses in methods of teaching commercial subjects, and supervised teaching.

The number of electives is large enough to enable a student to prepare for teaching some other subject in addition to the commercial subjects.

The curriculum does not include any college courses in shorthand and typewriting for the improvement of skill in these arts. Any student desiring to become a candidate for the bachelor's degree in commercial education must meet the speed and accuracy requirements in shorthand and typewriting and transcription necessary to become a teacher of commercial subjects either by work in commercial offices during the summer or by such other means as may be practicable for improving his skill and accuracy.

Curriculum

	Semester	
	I	II
<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
Introduction to the Social Sciences (Soc. Sci. 1y).....	3	3
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y).....	1	1
Reading and Speaking (Speech 1y).....	1	1
Economic Geography (T. and T. 1f).....	3	—
American National Government (Pol. Sci. 1s).....	—	3
Science (Biological or Physical).....	3	3
One from the following groups:		
History, Mathematics, Literature, Foreign Language.....	3	3
	17	17

	Semester	
	I	II
<i>Sophomore Year</i>		
Survey and Composition II (Eng. 2f, 3s).....	3	3
American History (H. 2y).....	3	3
Introduction to Teaching (Ed. 2f and 3 s).....	2	2
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
Principles of Economics (Econ. 51y).....	3	3
Money and Banking (Finance 53s).....	—	2
Electives	4	2
	17	17
<i>Junior Year</i>		
Elements of Business (O. and M. 51f).....	2	—
Principles of Accounting (Acct. 51f and 52s).....	4	4
Economics of Consumption (Econ. 136s).....	—	3
Elements of Statistics (G. and S. 14f).....	3	—
Development of American Educational Institutions (Ed. 100f).....	2	—
Educational Psychology (Psych. 10f).....	3	—
Technic of Teaching (Ed. 5 s).....	—	2
Observation of Teaching (Ed. 6s).....	—	1
Business Law (O. and M. 101s).....	—	3
Electives	2	2
	16	15
<i>Senior Year</i>		
Business Law (O. and M. 102f).....	3	—
Commercial Subjects in the High School (Ed. 150f and 151s).....	2	2
Supervised Teaching of High School Subjects (Ed. 139 s).....	—	2
The Junior High School (Ed. 110f).....	3	—
<i>or</i>		
The High School (Ed. 103s).....	—	3
Electives	7-9	8-11
	15	15

HOME ECONOMICS EDUCATION

The Home Economics Education curriculum is for students who are preparing to teach vocational or general home economics or to engage in any phase of home economics work which requires a knowledge of teaching methods. It includes studies in all phases of home economics and the allied sciences, with professional training for teaching these subjects. Electives may be chosen from other colleges.

Opportunity for additional training and practice is given through directed teaching, home management, house, and special work and observation of children in the University Nursery School.

Students electing this curriculum may register in the College of Education or the College of Home Economics. Students will be certified for graduation only upon fulfillment of all the requirements of this curriculum.

Curriculum	Semester	
	I	II
<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
General Chemistry (Chem. 1y).....	4	4
Textiles (H. E. 71f).....	3	—
Design (H. E. 21s).....	—	3
Reading and Speaking (Speech 1y).....	1	1
Personal Hygiene and Physical Activities (Phys. Ed. 2y, Phys. Ed. 4y).....	1	1
Freshman Lecture (H. E. 1y).....	1	1
Electives	2	2
	15	15
<i>Sophomore Year</i>		
Introduction to Teaching (Ed. 2f, 3s).....	2	2
Costume Design (H. E. 24f).....	3	—
Clothing (H. E. 11s).....	—	3
Foods (H. E. 31y).....	3	3
Elementary Physics (Phys. 3y).....	3	3
Community Hygiene and Physical Activities (Phys. Ed. 6y, Phys. Ed. 8y).....	2	2
Principles of Sociology (Soc. 1f).....	3	—
Introductory Botany (Bot. 1s).....	—	3
Elements of Organic Chemistry (Chem. 12Ay).....	2	2
	18	18
<i>Junior Year</i>		
Educational Psychology (Psych. 10f).....	3	—
Technic of Teaching (H. E. Ed. 5s).....	—	2
Observation of Teaching (H. E. Ed. 6s).....	—	1
Household Bacteriology (Bact. 3s).....	—	3
Nutrition (H. E. 131f).....	3	—
Food Buying and Meal Service (H. E. 137s).....	—	3
Management of the Home (H. E. 141f, 142s).....	3	3
Advanced Clothing (H. E. 111f).....	3	—
Human Anatomy and Physiology (Zool. 15f).....	4	—
Demonstrations (H. E. 133s).....	—	2
Fundamentals of Economics (Econ. 57s).....	—	3
	16	17

	Semester	
	I	II
<i>Senior Year</i>		
Child Study (H. E. Ed. 102f).....	3	—
Practice in Management of the Home (H. E. 143s).....	—	3
Teaching Secondary Vocational Home Economics (H. E. Ed. 103f)	3	—
History of Architecture and Interior Decoration (H. E. 121f and 122s)	3	3
Problems in Teaching Home Economics (H. E. Ed. 106f and H. E. Ed. 107s).....	1	1
The High School (Ed. 103s).....	—	3
Electives	4	5
	14	15

Electives should include one course each in History and English.

INDUSTRIAL EDUCATION

The program of studies in Industrial Education provides: (1) a four-year curriculum leading to the degree of Bachelor of Science in Industrial Education; (2) a program of professional courses to prepare teachers to meet the certification requirements in vocational and occupational schools; (3) a program of courses for the improvement of teachers in service.

I. Four-year Curriculum in Industrial Education.

The entrance requirements are the same as for the other curricula offered in the University. (See page 45.) Experience in some trade or industrial activity will benefit students preparing to teach industrial subjects.

This curriculum is designed to prepare both trade and industrial shop and related teachers, and teachers of industrial arts. There is sufficient latitude of electives so that a student may also meet certification requirements in some other high school subject.

Students entering an Industrial Education curriculum must register in the College of Education.

This curriculum, with limited variations according to the needs of the two groups, is so administered as to provide: (A) a four-year pre-service curriculum for students in residence; (B) a four-year curriculum for teachers in service.

A. Curriculum for Students in Residence

	Semester	
	I	II
<i>Freshman Year</i>		
Mechanical Drawing (Ind. Ed. 1f, 2s).....	2	2
Elementary Woodworking (Ind. Ed. 3f).....	3	—
Advanced Woodworking (Ind. Ed. 4s).....	—	3
Survey and Composition I (Eng. 1y).....	3	3
Reading and Speaking (Speech 1y).....	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y)	1	1
Mathematics (Math. 8f or 11f and 10s).....	3	3
History or Social Science.....	3	3
	16	16
<i>Sophomore Year</i>		
Sheet Metal (Ind. Ed. 5f).....	2	—
Art Metal (Ind. Ed. 6s).....	—	2
Mechanical Drawing (Ind. Ed. 7y).....	1	1
Electricity (Ind. Ed. 8y).....	2	2
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y)	2	2
Mathematics (Math. 18y).....	1	1
Survey and Composition II (Eng. 2f, 3s).....	3	3
Chemistry (Chem. 3y or 1y).....	3-4	3-4
Introduction to Teaching (Ed. 2f, 3s).....	2	2
	16-17	16-17
<i>Junior Year</i>		
Elementary Machine Shop (Ind. Ed. 9s).....	—	2
Cold Metal Work (Ind. Ed. 10f).....	2	—
Foundry (Ind. Ed. 11f).....	2	—
Essentials of Design (Ind. Ed. 160y).....	1	1
Educational Psychology (Psych. 10f).....	3	—
Technic of Teaching (Ed. 5s).....	—	2
Observation of Teaching (Ed. 6s).....	—	1
Industrial Education in the High School (Ind. Ed. 162s).....	—	2
Elementary Physics (Phys. 3y).....	3	3
History or Social Science.....	3	3
Electives	3	3
	17	17

	Semester	
	I	II
<i>Senior Year</i>		
Advanced Machine Shop (Ind. Ed. 13f).....	2	—
Shop Organization and Management (Ind. Ed. 164s).....	—	2
Educational Measurements (Ed. 105f).....	3	—
Supervised Teaching of High School Subjects: Industrial Education (Ed. 139f or s).....	2	or 2
Development of American Educational Institutions (Ed. 100f).....	2	—
Occupations, Guidance, and Placement (Ed. 163f).....	2	—
Evolution of Modern Industry (Ind. Ed. 165f and 166s).....	2	2
Electives	3-5	10-12
	—	—
	16	16

B. Curriculum for Teachers in Service

The requirements in this curriculum for the B. S. degree in Industrial Education are quantitatively the same as for Curriculum A, except that the military-physical training and speech requirements are waived. In summary the distribution is approximately as follows:

English	12 semester hours
History and the Social Sciences.....	16 semester hours
Mathematics and Science.....	20 semester hours
Shop and Drawing.....	30 semester hours
Education	24 semester hours
Electives	26 semester hours
	—
	128 semester hours

In the mathematics and science group, and in the history and social science group, there is reasonable latitude for individual choice, but courses in mathematics as related to shopwork and courses in American history and government are required.

Program for Vocational, Occupational, and Shop Center Teachers

This curriculum is designed for persons who have had experience in some trade or industry or in the teaching of shopwork.

Applicants for admission to this curriculum must have as a minimum requirement an elementary school education or its equivalent. The curriculum is prescribed, but is administered flexibly in order that it may be adjusted to the needs of students.

To meet the needs for industrial teacher-training in Baltimore and in other industrial centers, in-service courses are offered. The work of these courses deals principally with the analysis and classification of trade knowledge for instructional purposes, methods of teaching, observation and practice of teaching, psychology of trade and industrial education, and occupational information, guidance, and placement.

Completion of eight teacher-training courses which require, in general, two years of two hundred forty clock hours, entitles one to a full three-

year vocational teacher's certificate in the State of Maryland, and to a special diploma from the College of Education of the University of Maryland.

Courses for Teachers in Service

Courses are offered for teachers in service who are seeking to satisfy requirements for promotion.

A special announcement of the in-service courses in Baltimore is issued in August of each year. This may be obtained from the office of the Registrar either in Baltimore or in College Park.

PHYSICAL EDUCATION

The Physical Education curricula are designed to prepare teachers of physical education for the high schools and leaders for recreational programs. With the electives provided, it is possible to meet the certification requirements in other high school subjects as well as in physical education.

These curricula include separate courses for men and for women. Some of the courses are open to both men and women. (See Sec. III, page 283.) Variations for men and for women are shown in the curricula outlined below.

A standard uniform costing between five and ten dollars must be purchased by students electing the curricula.

Upon satisfactory completion of either curriculum the degree of Bachelor of Science will be conferred.

Students electing either of these curricula must register in the College of Education.

General Requirements

The general requirements are the same as for Arts and Science Education (see page 147), except that a foreign language is not required, and twenty semester hours of science are required as scheduled.

Curriculum

	Semester	
	I	II
<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
Reading and Speaking (Speech 1y).....	1	1
Elements of Zoology (Zool. 2f).....	3	—
Introductory Botany (Bot. 1s).....	—	3
Introduction to the Social Sciences (Soc. Sci. 1y).....	3	3
From the following groups: History, Foreign Language, Mathematics, Home Economics, Industrial Education.....	3	3
<i>Women</i>		
Fundamentals of Rhythm and Dance (Phys. Ed. 10y).....	1	1
Athletics I: Women (Phys. Ed. 12y).....	2	2
<i>Men</i>		
Basic R. O. T. C. (M. I. 1y).....	1	1
Athletics: Men (Phys. Ed. 5y).....	2	2
	—	—
	16	16

	Semester	
	I	II
<i>Sophomore Year</i>		
Introduction to Teaching (Ed. 2f, 3s).....	2	2
Survey and Composition II (Eng. 2f, 3s).....	3	3
Elementary Physics (Phys. 3y).....	3	3
Human Anatomy and Physiology (Zool. 15f).....	4	—
General Bacteriology (Bact. 1s).....	—	4
Hygiene (Phys. Ed. 11f).....	2	—
Survey of Physical Education (Phys. Ed. 20s).....	—	2
<i>Women</i>		
Modern Dance (Phys. Ed. 14y).....	1	1
Athletics II: Women (Phys. Ed. 22y).....	2	2
<i>Men</i>		
Basic R. O. T. C. (M. I. 2y).....	2	2
Gymnastics (Phys. Ed. 15y).....	1	1
	—	—
	17	17
<i>Junior Year</i>		
Educational Psychology (Psych. 10f).....	3	—
Technic of Teaching (Ed. 5s).....	—	2
Observation of Teaching (Ed. 6s).....	—	1
Physiology of Exercise (Phys. Ed. 125f).....	2	—
Theory and Function of Play (Phys. Ed. 132s).....	—	2
Prevention of Accidents (Phys. Ed. 13f).....	1	—
First Aid (Phys. Ed. 16s).....	—	1
Ballroom Dancing (Phys. Ed. 26y).....	1	1
Games and Stunts (Phys. Ed. 52y).....	1	1
Electives	7	7
<i>Women</i>		
Tap (Phys. Ed. 28f).....	1	—
Folk Dancing (Phys. Ed. 30s).....	—	1
<i>Men</i>		
Coaching and Officiating: Men (Phys. Ed. 113y).....	1	1
	—	—
	16	16

	Semester	
	I	II
<i>Senior Year</i>		
The Junior High School (Ed. 110f) or.....	3	—
The High School (Ed. 103s).....	—	3
Educational Measurements (Ed. 105f).....	3	—
Supervised Teaching (Ed. 139f or s).....	2	or 2
Teaching Health (Ed. 145s).....	—	2
Leadership in Recreation (Phys. Ed. 135y).....	2	2
Physical Education in the High School (Ed. 142f).....	2	—
Electives	2-7	5-10
<i>Women</i>		
Coaching and Officiating: Women (Phys. Ed. 114y).....	1	1
<i>Men</i>		
Physical Education Practice (Phys. Ed. 119y).....	1	1
	—	—
	15	15
<i>Recreation Curriculum</i>		
<i>Junior Year</i>		
Educational Psychology (Psych. 10f).....	3	—
Physiology of Exercise (Phys. Ed. 125f).....	2	—
Theory and Function of Play (Phys. Ed. 132s).....	—	2
Boys and Girls Clubs (Phys. Ed. 131f).....	3	—
Playground Management (Phys. Ed. 133s).....	—	3
Prevention of Accidents (Phys. Ed. 13f).....	1	—
First Aid (Phys. Ed. 16s).....	—	1
Ballroom Dancing (Phys. Ed. 26y).....	1	1
Games and Stunts (Phys. Ed. 52y).....	1	1
From the following: Sociology, Economics, Music, Art, Industrial Education, Home Economics, or Education.....	4	7
<i>Women</i>		
Tap (Phys. Ed. 28f).....	1	—
Folk Dancing (Phys. Ed. 30s).....	—	1
<i>Men</i>		
Coaching and Officiating: Men (Phys. Ed. 113y).....	1	1
	—	—
	16	16
<i>Senior Year</i>		
Leadership in Recreation (Phys. Ed. 135y).....	2	2
Community Recreation (Phys. Ed. 137f).....	3	—
Teaching Health (Ed. 145s).....	—	2
Methods in Recreation (Ed. 143f).....	2	—
Supervised Teaching (Ed. 139f or s).....	2	or 2
From the following: Sociology, Economics, Music, Art, Industrial Education, or Education.....	5-7	8-10
<i>Women</i>		
Coaching and Officiating: Women (Phys. Ed. 114y).....	1	1
<i>Men</i>		
Physical Education Practice (Phys. Ed. 119y).....	1	1
	—	—
	15	15

COLLEGE OF ENGINEERING

S. S. STEINBERG, *Dean.*

The primary purpose of the College of Engineering is to train young men to practice the profession of Engineering. It endeavors at the same time to equip them for their duties as citizens and for careers in public service and in industry.

The new economic conditions with which the engineering graduate will be faced when he goes into practice have emphasized the necessity for the adjustment of engineering curricula in their scope and objectives. It has become evident that greater emphasis than heretofore should be placed on the fundamentals of engineering, and that the engineer's training should include a knowledge of the sciences which deal with human relations and a familiarity with business organization and operation.

Accordingly, our engineering curricula have been revised recently to increase the time devoted to fundamentals and to non-technical subjects, which are a necessary part of the equipment of every educated man, and which are now considered essential to the proper training of engineers because of the practical application of these subjects in professional and business life. It is well recognized that an engineering training affords an efficient preparation for many callings in public and private life outside the engineering profession.

The College of Engineering includes the Departments of Chemical, Civil, Electrical, and Mechanical Engineering. In order to give the student time to choose the branch of engineering for which he is best adapted, the freshman year of the several courses is the same. Lectures and conferences are used to guide the student to make a proper selection. The courses differ only slightly in the sophomore year, but in the junior and senior years the students are directed more definitely along professional lines.

Admission Requirements

The requirements for admission to the College of Engineering are, in general, the same as elsewhere described for admission to the undergraduate departments of the University, except as to the requirements in mathematics. See Section I, Entrance.

It is possible, however, for high school graduates having the requisite number of entrance units to enter the College of Engineering without the unit of advanced algebra, or the one-half unit of solid geometry, provided such students are prepared to devote their first summer to a course in analytic geometry. The program for such students would be as follows: during the first semester, five hours a week would be devoted to making up advanced algebra and solid geometry; in the second semester, mathematics of the first semester would be scheduled, and the second semester mathe-

matics would be taken in the summer session. Thus, such students, if they passed the course, would be enabled to enter the sophomore year the next fall with their class without loss of time.

Bachelor Degrees in Engineering

Courses leading to the degree of Bachelor of Science are offered in chemical, civil, electrical, and mechanical engineering, respectively.

Master of Science in Engineering

The degree of Master of Science in Engineering may be earned by students registered in the Graduate School who hold bachelor degrees in engineering, which represent an amount of preparation and work similar to that required for bachelor degrees in the College of Engineering of the University of Maryland.

Candidates for the degree of Master of Science in Engineering are accepted in accordance with the procedure and requirements of the Graduate School, as will be found explained in the catalogue under the head of Graduate School.

Professional Degrees in Engineering

The degrees of Chemical Engineer, Civil Engineer, Electrical Engineer, and Mechanical Engineer will be granted only to graduates of the University who have obtained a bachelor's degree in engineering. The applicant must satisfy the following conditions:

1. He shall have engaged successfully in acceptable engineering work not less than four years after graduation.
2. He must be considered eligible by a committee composed of the Dean of the College of Engineering and the heads of the Departments of Chemical, Civil, Electrical, and Mechanical Engineering.
3. His registration for a degree must be approved at least twelve months prior to the date on which the degree is to be conferred. He shall present with his application a complete report of his engineering experience and an outline of his proposed thesis.
4. He shall present a satisfactory thesis on an approved subject.

Equipment

The Engineering buildings are provided with lecture-rooms, recitation-rooms, drafting-rooms, laboratories, and shops for various phases of engineering work.

Drafting-Rooms. The drafting rooms are fully equipped for practical work. The engineering student must provide himself with an approved drawing outfit, material, and books, the cost of which during the freshman year amounts to \$16 to \$20.

Chemical Engineering Laboratories. For instruction and research, the Chemical Engineering Department maintains the following laboratories: (1) General Testing and Control, (2) Unit Operations, (3) Cooperative Research, (4) Graduate Research.

In the General Testing and Control laboratory there is available complete equipment for the chemical and physical testing of water, gases, coal, petroleum, and their by-products, and general industrial chemicals, both inorganic and organic.

The Unit Operations laboratory contains equipment for the study of fluid flow, heat flow, drying, filtration, distillation, evaporation, crushing, grinding, and centrifuging. For the study of fluid flow a permanent hydraulic assembly is available, and this includes flow meters of most types.

In the laboratory there is a large column still with a kettle capacity of 100 gallons, equipped with temperature measurement, pressure measurement, sampling devices, condensers, and vacuum receivers. This still is so designed that it can be used either as a batch type unit, continuous feed type, direct pot still, steam still, or as a vacuum still. Studies in evaporation can be made on a double effect evaporator, one unit of which is equipped with a horizontal tube bundle and the other with a vertical tube bundle. This evaporator is equipped with vacuum and pressure gauges, stirrer, wet vacuum pump, a condensate pump, and a salt filter. For grinding there is a jaw crusher, a disc crusher, and a ball mill. A mechanical shaker and standard sieve are available for particle size separation.

Shop facilities include a lathe, drill press, grinder, and the customary types of tools necessary for unit operation and research studies.

The Cooperative and Graduate Research Laboratories are arranged to permit the installation of such special equipment as the particular problems under consideration may require. Effort is made to maintain cooperation with the industries of Maryland and the Chemical Engineering activities of the State and Federal governments; for such work important advantages accrue because of the location of the College of Engineering near Washington, D. C., and the location of the Eastern Experiment Station of the United States Bureau of Mines on the University campus.

Electrical Machinery Laboratories. There is provided a 20 kw. motor-generator set, consisting of a synchronous motor and a compound direct-current generator with motor and generator control panels, to furnish direct current for testing purposes. Through the distribution switchboard, provision is made for distributing to the various laboratories direct current at 125 volts, and alternating current, single-phase, and three-phase, at 110 and 220 volts.

The equipment includes a variety of direct and alternating-current generators and motors, synchronous converter, distribution transformers, induction regulator, control apparatus, and the measuring instruments essential for practical electrical testing. Most of the machines are of modern

construction and of such size and design as to give typical performance. Flexibility of operation is provided in several ways: for instance, one of the synchronous machines has the coil terminals brought out to an external connection board, so that the windings may be connected for single-phase, two-phase, or three-phase operation; the machine is also provided with a phase-wound rotor and a squirrel-cage rotor, either of which may be used to replace the synchronous rotor. The synchronous converter is arranged for direct or inverted operation, either single-phase, two-phase, or three-phase. Metering and control boards are provided for rapid change of operating conditions with any machine. A single phase induction regulator with control panel provides voltage regulation for experimental work. There are several types of fractional-horsepower motors. The direct-current machines include several motor-generator sets and motors of various types and sizes for constant-speed and adjustable-speed operation. Storage batteries are available for low constant-voltage testing. Water-cooled Prony brakes are supplied for machine testing. Included in the general test equipment is a fairly complete assortment of ammeters, voltmeters, wattmeters, frequency meters, and two oscillographs.

Illumination Laboratory. The equipment includes electric lamps, shades, and reflectors of various types; a bar photometer for determination of candle-power distribution of incandescent lamps; and four types of portable photometers for the measurement of illumination intensities.

Standardizing Laboratory. The apparatus includes a standard ammeter, voltmeter and watt-hourmeter, standards of voltage and resistance, potentiometers and other equipment arranged for checking of laboratory meters. A five machine motor-generator set delivers power, both direct and alternating-current, at two voltages for meter testing.

Electrical Communications and Electronics Laboratory. Telephone apparatus is available for experimental work on magneto and common battery systems; artificial lines, oscillators, vacuum tube voltmeters, cathode-ray oscillograph, and equipment for passive networks including transmission lines and coupled circuits.

An amateur short wave radio station has been equipped for operation by the members of the student Radio Society under the guidance of a member of the faculty. The station equipment consists of a super-heterodyne receiver and a 500-watt transmitter.

Mechanical Engineering Laboratories. The apparatus consists of slide valve automatic steam engines equipped with Prony brakes, steam turbine-generator set, Waukesha Diesel engine research unit with electric dynamometer and other accessories, two-stage steam-driven air compressor, gas engines, fans, pumps, indicators, gauges, feed water heaters, steam condensers, tachometers, injectors, flow meters, apparatus for determining the B. T. U. in coal, gas, and liquid fuels, pyrometers, draft gauges, planimeters, thermometers, and other necessary apparatus and equipment for a mechanical engineering laboratory.

Hydraulics Laboratory. The equipment consists of electrically driven centrifugal pumps, measuring tanks, various types of weirs, venturi meters, nozzles, Pelton water wheel with Prony brake built especially for laboratory use, hook gauges, dial gauges, tachometers, stop watches, and other apparatus necessary for the study of the flow characteristics of water.

Materials Laboratories. Apparatus and equipment are provided for making standard tests on various construction materials, such as sand, gravel, steel, concrete, timber, and brick.

Equipment includes a 300,000-pound hydraulic testing machine, two 100,000-pound universal testing machines, torsion testing machine, hardness tester, abrasion testing machine, rattler, constant temperature chamber, cement-testing apparatus, extensometer and micrometer gauges, and other special devices for ascertaining the elastic properties of different materials.

Special apparatus which has been designed and made in the shops of the University is also made available for student work.

The College of Engineering owns a Beggs deformeter apparatus for the mechanical solution of stresses in structures by use of celluloid models. Equipment is also available for study of models by the photo-elastic method.

Engineering Soils Laboratory. Equipment is available for performing the usual tests on engineering soils. This includes apparatus for grain size analysis, Atterberg limits, permeability, optimum moisture content for compaction, Proctor penetration, and consolidation.

Research Foundation. The National Sand and Gravel Association has, by arrangement with the College of Engineering, established its testing and research laboratory at the University. The purpose of the Research Foundation thus organized is to make available to the Association additional facilities for its investigational work, and to provide for the College of Engineering additional facilities and opportunities for increasing the scope of its engineering research.

Engineering Experiment Station. The purpose of the Engineering Experiment Station at the University, as well as of the various research laboratories, is to conduct cooperative studies with departments of the State and Federal governments, and with the industries of Maryland. These studies have included traffic surveys over the Maryland State highway system, studies of concrete cores cut from the state roads, and laboratory studies of the elastic properties of concrete.

Cooperative researches now under way in the Engineering Experiment Station include the following projects: reinforced concrete hinge construction, smoke abatement, expansion joints for concrete roads, and diagonal tension reinforcement for concrete beams, operating effect of size of motor in single phase rural electric lines, and study of allowable stresses in open section beam-columns for use in airplanes.

Machine Shops and Foundry. The machine shops and foundry are well lighted and fully equipped. Shops for wood working, metal, forge, and foundry practice are provided.

The wood-working shop has full equipment of hand and power machinery.

The machine shops are equipped with various types of lathes, planers, milling machines, drill presses, shaper, midget mill, and precision boring head.

The foundry is provided with an iron cupola, a brass furnace, and a coke oven. Equipment is available for gas and electric arc welding.

The shop equipment not only furnishes practice, drill, and instruction for students, but makes possible the complete production of special apparatus for conducting experimental and research work in engineering.

Surveying Equipment. Surveying equipment for plane topographic, and geodetic surveying is provided properly to equip several field parties. A wide variety of surveying instruments is provided, including domestic as well as foreign makes.

Special Models and Specimens. A number of models illustrating various types of highway construction and highway bridges are available.

A wide variety of specimens of the more common minerals and rocks has been collected from various sections of the country, particularly from Maryland.

Engineering Library

In addition to the general University Library, each department maintains a library for reference, and receives the standard engineering magazines. The class work, particularly in advanced courses, requires that students consult special books of reference and current technical literature.

The Davis Library of Highway Engineering and Transport, founded by Dr. Charles H. Davis, President of the National Highways Association, is part of the Library of the College of Engineering. The many books, periodicals, pamphlets, and other items included in this library cover all phases of highway engineering, highway transportation, and highway traffic control.

There has also been donated to the College of Engineering the transportation library of the late J. Rowland Bibbins of Washington, D. C. The books and reports in this library deal with urban transportation problems, including railroads, street cars, subways, busses, and city planning.

Curricula

The normal curriculum of each department is outlined on the following pages. Students are expected to attend and take part in the meetings of the student chapters of the technical engineering societies.

The freshman engineering students are given a special course of lectures by practicing engineers covering the work of the several engineering professional fields. The purpose of this course is to assist the freshman in

selecting the particular field of engineering for which he is best adapted. The student is required to submit a brief written summary of each lecture.

Student branches of the following national technical societies are established in the College of Engineering: American Society of Civil Engineers, American Institute of Electrical Engineers, and American Society of Mechanical Engineers. The student branches meet regularly for the discussion of topics dealing with the various fields of engineering.

Junior and senior students with requisite standing may elect, with the permission of the Dean of the College of Engineering, additional courses not exceeding three credits a semester.

All engineering students are urged to secure work during the summer, particularly in engineering fields.

The proximity of the University to Baltimore and Washington, and to other places where there are large industrial enterprises, offers an excellent opportunity for the engineering student to observe what is being done in his chosen field. An instructor accompanies students on all inspection trips, and the student is required to submit a written report of each trip.

Freshman Curriculum

Freshman Year

Alike for all engineering courses.	Semester	
	I	II
Survey and Composition I (Eng. 1y).....	3	3
Reading and Speaking (Speech 1y).....	1	1
College Algebra and Analytic Geometry (Math. 21f and 22s).....	4	4
General Chemistry (Chem. 1y).....	4	4
Engineering Drawing (Dr. 1f).....	2	—
Descriptive Geometry (Dr. 2s).....	—	2
Forge Practice (Shop 1s).....	—	1
Introduction to Engineering (Engr. 1f).....	1	—
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y)	1	1
*Elective	3	3
	19	19

CHEMICAL ENGINEERING

Chemical Engineering deals primarily with the industrial and economic transformation of matter. It seeks to assemble and develop information on chemical operations and processes of importance in modern life and to apply this under executive direction, according to engineering methods for the attainment of economic objectives. Modern chemical research has contributed so much to industrial and social welfare that the field of the chemical engineer may now be said to cover practically every operation in which any industrial material undergoes a change in its chemical identity.

*The student may elect a course in Social Science, History, Language, or Government. Students who plan to enroll in Chemical Engineering are advised to take German or French.

Curriculum

	Semester	
	I	II
<i>Sophomore Year</i>		
Quantitative Analysis (Chem. 4f).....	4	—
Water, Fuels, and Lubricants (Ch. E. 101s).....	—	4
Calculus (Math. 23y).....	4	4
Elements of Organic Chemistry (Chem. 8Ay).....	2	2
Elements of Plane Surveying (Surv. 1s).....	—	1
Modern Language (French or German).....	3	3
General Physics (Phys. 2y).....	5	5
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y)	2	2
	20	21
<i>Junior Year</i>		
Applied Mechanics (Phys. 117y).....	2	2
Physical Chemistry (Chem. 102Ay).....	3	3
Physical Chemistry Laboratory (Chem. 102By).....	2	2
Principles of Economics (Econ. 51y).....	3	3
Elements of Electrical Engineering (E. E. 102y).....	4	4
Elements of Chemical Engineering (Ch. E. 103y).....	3	3
*Fuels and their Utilization (Ch. E. 107y).....	2	2
*Chemical Technology (Ch. E. 108y).....		
	19	19
<i>Senior Year</i>		
Thermodynamics (Chem. 105y).....	2	2
Chemical Engineering Seminar (Ch. E. 104y).....	1	1
Precision of Measurements (Phys. 101f).....	3	—
Advanced Unit Operations (Ch. E. 105y).....	5	5
Minor Problems (Ch. E. 106y).....	5	8
Fundamentals of Business Administration (O. and M. 110f).....	2	—
	18	16

CHEMICAL ENGINEERING-CHEMISTRY

A five-year program in Chemical Engineering and Chemistry will be arranged between the College of Engineering and the College of Arts and Sciences which will permit students, who so desire, to become candidates for the degrees of Bachelor of Science in Engineering and Bachelor of Science in Arts.

CIVIL ENGINEERING

Civil Engineering deals with the design, construction, and maintenance of highways, railroads, waterways, bridges, buildings, water supply and sewerage systems, harbor improvements, dams, and surveying and mapping.

*Student has a choice between Chemical Technology and Fuels.

Curriculum

	Semester	
	I	II
<i>Sophomore Year</i>		
Oral Technical English (Speech 5f).....	2	—
Calculus (Math. 23y).....	4	4
General Physics (Phys. 2y).....	5	5
Descriptive Geometry (Dr. 3f).....	2	—
Statics and Dynamics (Mech. 1s).....	—	3
Plane Surveying (Surv. 2y).....	2	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y)	2	2
*Elective	3	3
	—	—
	20	20
<i>Junior Year</i>		
Advanced Oral Technical English (Speech 6y).....	1	1
Fundamentals of Economics (Econ. 57s).....	—	3
Engineering Geology (Engr. 101f).....	2	—
Strength of Materials (Mech. 101f).....	5	—
Hydraulics (C. E. 101s).....	—	4
Materials of Engineering (Mech. 103s).....	—	2
Principles of Mechanical Engineering (M. E. 116f).....	3	—
Principles of Electrical Engineering (E. E. 101s)	—	3
Curves and Earthwork (C. E. 103f).....	3	—
Theory of Structures (C. E. 104s).....	—	5
Advanced Surveying (Surv. 101f).....	4	—
Technical Society	—	—
	—	—
	18	18
<i>Senior Year</i>		
Advanced Oral Technical English (Speech 7y).....	1	1
Fundamentals of Business Administration (O. and M. 110f).....	2	—
Engineering Law and Specifications (Engr. 102s).....	—	2
Elements of Sanitary Bacteriology (Bact. 4s).....	—	1
Elements of Highways (C. E. 105f).....	3	—
Concrete Design (C. E. 106y).....	4	3
Structural Design (C. E. 107y).....	4	3
Municipal Sanitation (C. E. 108y).....	3	3
Thesis (C. E. 109y).....	1	2
Soils and Foundations (C. E. 110s).....	—	3
Technical Society	—	—
	—	—
	18	18

*The student may elect a course in Social Science, History, Language, or Government

ELECTRICAL ENGINEERING

Electrical Engineering deals with the generation, transmission, and distribution of electrical energy; electrical transportation, communication, illumination, and manufacturing; and miscellaneous electrical applications in industry, commerce, and home life.

Curriculum

	Semester	
	I	II
<i>Sophomore Year</i>		
Oral Technical English (Speech 5f).....	2	—
Calculus (Math. 23y).....	4	4
General Physics (Phys. 2y).....	5	5
Descriptive Geometry (Dr. 3f).....	2	—
Elements of Plane Surveying (Surv. 1f).....	1	—
Machine Shop Practice (Shop 2f).....	1	—
Elements of Electrical Engineering (E. E. 1s).....	—	3
Statics and Dynamics (Mech. 1s).....	—	3
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y)	2	2
*Elective	3	3
	—	—
	20	20
<i>Junior Year</i>		
Advanced Oral Technical English (Speech 6y).....	1	1
Fundamentals of Economics (Econ. 57s).....	—	3
Differential Equations for Engineers (Math. 114f).....	3	—
Strength of Materials (Mech. 102f).....	4	—
Hydraulics (C. E. 102s).....	—	3
Materials of Engineering (Mech. 103s).....	—	2
Direct Currents (E. E. 103f).....	5	—
Direct Current Design (E. E. 104f).....	1	—
Advanced Electricity and Magnetism (E. E. 105y).....	4	4
Alternating Current Circuits (E. E. 106s).....	—	5
Technical Society	—	—
	—	—
	18	18

*The student may elect a course in Social Science, History, Language, or Government.

	Semester	
	I	II
<i>Senior Year (1939-40)</i>		
Advanced Oral Technical English (Speech 7y).....	1	1
Fundamentals of Business Administration (O. and M. 110f).....	2	—
Engineering Law and Specifications (Engr. 102s).....	—	2
Alternating Current Machinery (E. E. 107y).....	4	4
Alternating Current Design (E. E. 108f).....	1	—
Electrical Communications (E. E. 109y).....	3	3
Illumination (E. E. 110f).....	3	—
Electric Railways (E. E. 111f).....	3	—
Electric Power Transmission (E. E. 112s).....	—	3
Power Plants (M. E. 117s).....	—	3
Thesis (E. E. 114y).....	1	2
Technical Society	—	—
	18	18
<i>Senior Year (1940-41)</i>		
Advanced Oral Technical English (Speech 7y).....	1	1
Fundamentals of Business Administration (O. & M. 110f).....	2	—
Engineering Law and Specifications (Engr. 102s).....	—	2
Alternating Current Machinery (E. E. 107y).....	4	4
Alternating Current Design (E. E. 108f).....	1	—
Electrical Communications (E. E. 109y).....	3	3
*Illumination (E. E. 110f).....	3	—
*Electric Railways (E. E. 111f).....	3	—
*Electric Power Transmission (E. E. 112s).....	—	3
*Engineering Electronics (E. E. 113s).....	—	3
Thermodynamics (M. E. 101f).....	3	—
Power Plants (M. E. 117s).....	—	3
Thesis (E. E. 114y).....	1	2
Technical Society	—	—
	18	18

MECHANICAL ENGINEERING

Mechanical Engineering deals with the design, construction, and maintenance of machinery and power plants; heating, ventilation, and refrigeration; and the organization and operation of industrial plants.

*Alternates

Curriculum	Semester	
	I	II
<i>Sophomore Year</i>		
Oral Technical English (Speech 5f).....	2	—
Calculus (Math. 23y).....	4	4
General Physics (Phys. 2y).....	5	5
Descriptive Geometry (Dr. 3f).....	2	—
Elements of Plane Surveying (Surv. 1f, s).....	—	1
Machine Shop Practice (Shop 3f).....	2	—
Statics and Dynamics (Mech. 2s).....	—	5
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y)	2	2
†Elective	3	3
	20	20
<i>Junior Year—General</i>		
Advanced Oral Technical English (Speech 6y).....	1	1
Fundamentals of Economics (Econ. 57s).....	—	3
Differential Equations for Engineers (Math. 114f).....	3	—
Strength of Materials (Mech. 101f).....	5	—
Hydraulics (C. E. 102s).....	—	3
Materials of Engineering (Mech. 103s).....	—	2
Principles of Electrical Engineering (E. E. 102y).....	4	4
Machinery Design (M. E. 102y).....	2	2
Machine Shop Practice (Shop 101f).....	1	—
Foundry Practice (Shop 102s).....	—	1
Thermodynamics (M. E. 103y).....	2	2
Technical Society	—	—
	18	18
<i>Junior Year—Aeronautical Option</i>		
Advanced Oral Technical English (Speech 6y).....	1	1
Fundamentals of Economics (Econ. 57s).....	—	3
Differential Equations for Engineers (Math. 114f).....	3	—
Strength of Materials (Mech. 101f).....	5	—
Materials of Engineering (Mech. 103s).....	—	2
Machine Shop Practice (Shop 101f).....	1	—
Foundry Practice (Shop 102s).....	—	1
Principles of Electrical Engineering (E. E. 102y).....	4	4
Machinery Design (M. E. 102y).....	2	2
Thermodynamics (M. E. 103y).....	2	2
Aerodynamics and Hydrodynamics (M. E. 104s).....	—	3
Technical Society	—	—
	18	18

†The student may elect a course in Social Science, History, Language, or Government.

	Semester	
	I	II
<i>Senior Year (1939-40)</i>		
Advanced Oral Technical English (Speech 7y).....	1	1
Fundamentals of Business Administration (O. and M. 110f).....	2	—
Engineering Law and Specifications (Engr. 102s).....	—	2
Internal Combustion Engines (M. E. 105f).....	3	—
Heating and Ventilation (M. E. 106f).....	3	—
Refrigeration (M. E. 107s).....	—	3
Design of Prime Movers (M. E. 108y).....	3	3
Design of Power Plants (M. E. 109s).....	—	2
Principles of Electrical Engineering (E. E. 102y).....	4	4
Mechanical Laboratory (M. E. 110y).....	1	1
Thesis (M. E. 111y).....	1	2
Technical Society	—	—
	18	18
<i>Senior Year—General (1940-41)</i>		
Advanced Oral Technical English (Speech 7y).....	1	1
Fundamentals of Business Administration (O. and M. 110f).....	2	—
Engineering Law and Specifications (Engr. 102s).....	—	2
Heating and Ventilation (M. E. 106f).....	3	—
Refrigeration (M. E. 107s).....	—	3
Design of Prime Movers (M. E. 112y).....	4	4
Mechanical Engineering Design (M. E. 113y).....	4	3
Mechanical Laboratory (M. E. 114y).....	3	3
Thesis (M. E. 111y).....	1	2
Technical Society	—	—
	18	18
<i>Senior Year—Aeronautical Option (1940-41)</i>		
Advanced Oral Technical English (Speech 7y).....	1	1
Fundamentals of Business Administration (O. and M. 110f).....	2	—
Engineering Law and Specifications (Engr. 102s).....	—	2
Airplane Structures (M. E. 115y).....	3	3
Design of Prime Movers (M. E. 112y).....	4	4
Mechanical Engineering Design (M. E. 113y).....	4	3
Mechanical Laboratory (M. E. 114y).....	3	3
Thesis (M. E. 111y).....	1	2
Technical Society	—	—
	18	18

BUREAU OF MINES AND CHEMICAL ENGINEERING RESEARCH FELLOWSHIPS IN APPLIED SCIENCE AND ENGINEERING

The University of Maryland, in cooperation with the Bureau of Mines, offers fellowships for research in the field of engineering and applied sciences. Fellows enter upon their duties on July 1, and continue for 12 months, including one month for vacation. Payments under a fellowship are made at the end of each month, and amount to \$600 for the year. The University will remit payment of tuition fees, and will grant all fellowship privileges.

Fellows register as students in the Graduate School of the University of Maryland, and become candidates for the degree of Doctor of Philosophy. Class work will be directed by the heads of the departments of instruction, but about half of the time will be spent in research, under the direction of the Bureau of Mines staff.

Appropriate problems in physics, chemistry, chemical engineering, or mathematics will be chosen according to the abilities of the candidates and the interests of the Bureau Divisions. The faculty supervisor will be the Professor of Chemical Engineering of the University of Maryland.

The above fellowships will be known as Bureau of Mines Research Fellowships. The recipients will undertake the solution of definite problems confronting the mineral industries. The research will be performed at the Eastern Experiment Station of the Bureau of Mines, a large building recently completed on the campus of the University of Maryland in College Park.

To encourage cooperation with the industries of Maryland and to develop research and instruction in Chemical Engineering, the University of Maryland will offer two fellowships in Chemical Engineering. These fellowships will pay a stipend of \$500 per year each, and will ordinarily require residence during the university year from September to June.

All the foregoing fellowships are open to graduates of universities and technical colleges who have the proper training in engineering or applied physical sciences, and who are qualified to undertake research work. Preference will be given to men who have already had one year of graduate work, and who have experience in research.

Applications with a certified copy of college record, applicant's photograph, statement of technical and practical experience (if any), and letters from three persons, such as instructors or employers, covering specifically the applicant's character, ability, education, and experience, will be received up to April 1. The application should be addressed to Fellowship Committee, Eastern Experiment Station, Bureau of Mines, United States Department of the Interior, College Park, Maryland.

BUREAU OF MINES LECTURES

Under the auspices of the University of Maryland, the Bureau of Mines of the United States Department of the Interior, which maintains its Eastern Experiment Station on the campus at College Park, will offer an interesting series of public lectures in the auditorium of the College of Engineering throughout the university year. The lectures, eight in number, will be given monthly, beginning in October, on the fourth Tuesday of each month except December at 8.15 P. M. The speakers will be outstanding members of the staff of the Bureau's various experiment stations throughout the United States, selected because of broad and varied experience in fields of wide technical and public interest, involving fundamental and pioneering research. Although the lectures are arranged in connection with the new work of the University in chemical engineering, they cover a broad field of science, technology, and economics.

There will be no charge for admission. The general public as well as the faculty and student body are cordially invited.

COLLEGE OF HOME ECONOMICS

M. MARIE MOUNT, *Dean*

Home economics subjects are planned to meet the needs of the following classes of students: (1) those who desire a general knowledge of home economics without specializing in any one phase; (2) those who wish to teach home economics or to become extension specialists in home economics; (3) those who are interested in certain phases of home economics with the intention of becoming dietitians, restaurant and cafeteria managers, textile specialists, designers, clothing specialists in department stores, or demonstrators for commercial firms.

Departments

For administrative purposes the College of Home Economics is organized into the Departments of Foods and Nutrition; Textiles, Clothing, and Art; and Home and Institution Management.

Facilities

The new home economics building, which will be ready for occupancy in the fall of 1939, increases greatly the classroom and laboratory facilities. These increased facilities will permit expansion of work now being offered and the addition of new lines of work. The college maintains a home management house, in which students gain practical experience in home-making during their senior year.

Baltimore and Washington afford unusual opportunities for trips, additional study, and practical experience pertaining to the various phases of home economics.

Professional Organizations

The Home Economics Club, to which all home economics students are eligible, is affiliated with the American Home Economics Association.

Omicron Nu, a national home economics honor society, established Alpha Zeta chapter at the University of Maryland, November, 1937. Students of high scholarship may be elected to membership.

Degree

The degree of Bachelor of Science is conferred for the satisfactory completion of four years of prescribed courses, of 128 semester hours. In accordance with the University policy, not less than three-fourths of the credits for graduation must be earned with grades of A, B, or C.

Prescribed Curricula

All students registered in the College of Home Economics follow the General Home Economics Curriculum for the first two years. At the beginning of the junior year a student may continue with the General Home Economics Curriculum, or elect one of the following special curricula, or a combination of curricula. A student who wishes to teach home economics may register in Home Economics Education in the College of Home Economics, or in the College of Education (see Home Economics Education).

Following are the outlines of the Curricula for General Home Economics, Textiles and Clothing, Foods and Nutrition, Institution Management, Practical Art, and Home Economics Extension.

**Curriculum in General Home Economics

	Semester	
	I	II
<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
General Chemistry (Chem. 1y).....	4	4
Textiles (H. E. 71f).....	3	—
Design (H. E. 21s).....	—	3
Reading and Speaking (Speech 1y).....	1	1
Personal Hygiene and Physical Activities (Phys. Ed. 2y, Phys. Ed. 4y).....	1	1
Home Economics Lectures (H. E. 1y).....	1	1
*Electives	2-3	2-3
	15-16	15-16
<i>†Sophomore Year</i>		
Costume Design (H. E. 24f).....	3	—
Clothing (H. E. 11s).....	—	3
Foods (H. E. 31y).....	3	3
Elementary Physics (Phys. 3y).....	3	3
Community Hygiene and Physical Activities (Phys. Ed. 6y, Phys. Ed. 8y).....	2	2
Principles of Sociology (Soc. 1f).....	3	—
Fundamentals of Economics (Econ. 57s).....	—	3
‡Electives	3	3
	—	—
	17	17

*One year or more of French is required of students majoring in art.

†Organic Chemistry (Chem. 12 Ay and Chem. 12 By) is required of students electing the foods, textiles and clothing, institution management, or home economics extension curricula.

‡In addition to the curriculum as prescribed one course in psychology is required and a course in one of the following sciences: zoology, botany, physiology, or genetics.

**The general home economics curriculum is planned for the student desiring a general college education with training for home-making. The other curricula prepare for a vocation.

	Semester	
	I	II
<i>Junior Year</i>		
§Elements of Nutrition (H. E. 32f).....	3	—
or		
Nutrition (H. E. 131f).....	—	3
Food Buying and Meal Service (H. E. 137s).....	3	3
Management of the Home (H. E. 141f, 142s).....	3	—
Advanced Clothing (H. E. 111f).....	—	3
Household Bacteriology (Bact. 3s).....	3	3
Interior Decoration (H. E. 121f, 122s).....	4-5	4-5
Electives	—	—
	16-17	16-17

Senior Year

Child Study (H. E. Ed. 102f).....	3	—
Practice in Management of the Home (H. E. 143f or s).....	—	3
Electives	12	12
	—	—
	15	15

Curriculum in Foods and Nutrition

	Semester	
	I	II
<i>Junior Year</i>		
General Physiological Chemistry (Chem. 108f).....	4	—
Nutrition (H. E. 131f).....	3	—
Dietetics (H. E. 132s).....	—	3
Management of the Home (H. E. 141f, 142s).....	3	3
Household Bacteriology (Bact. 3s).....	—	3
Food Buying and Meal Service (H. E. 137s).....	—	3
Interior Decoration (H. E. 121f, 122s).....	3	3
Electives	4	2
	—	—
	17	17
<i>Senior Year</i>		
Child Study (H. E. Ed. 102f).....	3	—
Practice in Management of the Home (H. E. 143f or s).....	—	3
Experimental Foods (H. E. 135f or s).....	4	—
Demonstrations (H. E. 133f or s).....	—	2
Advanced Foods (H. E. 134s).....	—	3
Electives	8	7
	—	—
	15	15

§A student whose major is foods or institution management will take Nutrition (H. E. 131f). Chem. 12 Ay is prerequisite for Nutrition (H. E. 131f).

*Curriculum in Institution Management

<i>Junior Year</i>	<i>Semester</i>	
	<i>I</i>	<i>II</i>
General Physiological Chemistry (Chem. 108f).....	4	—
Household Bacteriology (Bact. 3s).....	—	3
Nutrition (H. E. 131f).....	3	—
Dietetics (H. E. 132s).....	—	3
Management of the Home (H. E. 141f, 142s).....	3	3
Institution Management (H. E. 144y).....	3	3
Technic of Teaching (H. E. Ed. 5s).....	—	2
Observation of Teaching (H. E. Ed. 6s).....	—	1
Food Buying and Meal Service (H. E. 137s).....	—	3
Electives	4	—

<i>Senior Year</i>	<i>I</i>	<i>II</i>
Practice in Management of the Home (H. E. 143f).....	3	—
Child Study (H. E. Ed. 102f or s).....	—	3
Experimental Foods (H. E. 135f).....	4	—
Advanced Institution Management (H. E. 146s).....	—	3
Institution Cookery (H. E. 147f).....	3	—
Interior Decoration (H. E. 121f, 122s).....	3	3
Mental Hygiene (Ed. Psych. 105s).....	—	3
Diet in Disease (H. E. 138s).....	—	3
Electives	2	—
	15	15

Curriculum in Home Economics Extension

<i>Junior Year</i>	<i>I</i>	<i>II</i>
Nutrition (H. E. 131f).....	3	—
Dietetics (H. E. 132s).....	—	3
Management of the Home (H. E. 141f, 142s).....	3	3
Advanced Clothing (H. E. 111f).....	3	—
Household Bacteriology (Bact. 3s).....	—	3
Educational Psychology (Psych. 10f).....	3	—
Technic of Teaching (H. E. Ed. 5s).....	—	2
Observation of Teaching (H. E. Ed. 6s).....	—	1
Demonstrations (H. E. 133f).....	2	—
Food Buying and Meal Service (H. E. 137s).....	—	3
Interior Decoration (H. E. 121f, 122s).....	3	3
Electives	—	—
	17	18

*Training for a hospital dietitian requires one year of graduate study in a hospital offering a course approved by the American Dietetic Association. The institution management curriculum meets the academic requirements for entrance to such a course.

A student planning to do institutional work other than hospital dietetics is not required to take Technic of Teaching (H. E. Ed. 5s), Observation of Teaching (H. E. Ed. 6s) and Diet in Disease (H. E. 138s).

<i>Senior Year</i>	<i>I</i>	<i>II</i>
Child Study (H. E. Ed. 102f).....	3	—
Practice in Management of the Home (H. E. 143s).....	—	3
Mental Hygiene (Psych. 130s).....	—	3
Human Physiology (Zool. 16s).....	—	3
Methods in Home Economics Extension (H. E. 151f).....	3	—
Rural Life and Education (R. Ed. 110s).....	—	3
*Electives	9	3
	15	15

Curriculum in Textiles and Clothing

<i>Junior Year</i>	<i>I</i>	<i>II</i>
Advanced Clothing (H. E. 111f).....	3	—
Advanced Textiles (H. E. 171s).....	—	3
Chemistry of Textiles (Chem. 14s).....	—	3
†Nutrition (H. E. 131f).....	3	—
or		
Elements of Nutrition (H. E. 32f).....		
Management of the Home (H. E. 141f, 142s).....	3	3
Household Bacteriology (Bact. 3s).....	—	3
Interior Decoration (H. E. 121f, 122s).....	3	3
Electives	5	2
	17	17

<i>Senior Year</i>	<i>I</i>	<i>II</i>
Problems in Clothing (H. E. 112s).....	—	3
Problems in Textiles (H. E. 172f).....	4	—
Practice in Management of the Home (H. E. 143f).....	3	—
Child Study (H. E. Ed. 102f or s).....	—	3
Electives	8	9
	15	15

*Electives should include a course in Poultry and in Dairying.

†Chemistry 12 Ay is prerequisite for Nutrition H. E. 131f.

†Curriculum in Practical Art

	Semester	
	I	II
<i>Junior Year</i>		
Human Physiology (Zool. 16s).....	—	3
Art in Ancient Civilization I and II (Art. 1f, 2s).....	2	2
Interior Decoration (H. E. 121f, H. E. 122s).....	3	3
Management of the Home (H. E. 141f, 142s).....	3	3
Elements of Nutrition (H. E. 32f).....	3	—
Introduction to Psychology (Psych. 1f).....	3	—
Psychology of Personnel (Psych. 161s).....	—	3
Advanced Clothing (H. E. 111f).....	3	—
Electives	—	3
	17	17
<i>Senior Year</i>		
Advanced Design (H. E. 123f, 124s).....	3	3
Elements of Business (O. and M. 51f).....	2	—
Practice in Management of the Home (H. E. 143f).....	3	—
Child Study (H. E. Ed. 102s).....	—	3
Merchandise Display (H. E. 125s).....	—	2
Electives	7	7
	15	15

†A student electing the Practical Art curriculum may substitute Chemistry 3y for Chemistry 1y. An elective in science may be substituted for Phys. 3y. A total of 12 hours of science is required in this curriculum.

THE GRADUATE SCHOOL

C. O. APPLEMAN, *Dean*.

The Graduate School Council

H. C. BYRD, LL.D., President of the University.
C. O. APPLEMAN, Ph.D., Dean of the Graduate School, Chairman.
L. B. BROUGHTON, Ph.D., Professor of Chemistry.
E. N. CORY, Ph.D., Professor of Entomology.
H. F. COTTERMAN, Ph.D., Professor of Agricultural Education.
CHARLES B. HALE, Ph.D., Professor of English.
L. V. HOWARD, Ph.D., Professor of Political Science.
L. H. JAMES, Ph.D., Professor of Bacteriology.
DEVOE MEADE, Ph.D., Professor of Animal and Dairy Husbandry.
J. E. METZGER, M.A., Professor of Agronomy.
M. MARIE MOUNT, M.A., Professor of Home and Institution Management.
H. J. PATTERSON, D.Sc. Dean Emeritus of Agriculture.
W. S. SMALL, Ph.D., Professor of Education.
T. H. TALIAFERRO, C.E., Ph.D., Dean of the Faculty.
A. E. ZUCKER, Ph.D., Professor of Modern Languages.
WALTER H. HARTUNG, Ph.D., Professor of Pharmaceutical Chemistry (Baltimore).
EDUARD UHLENHUTH, Ph.D., Professor of Gross Anatomy (Baltimore).

General Information

HISTORY AND ORGANIZATION

In the earlier years of the institution the Master's degree was frequently conferred, but the work of the graduate students was in charge of the departments concerned, under the supervision of the general faculty. The Graduate School was established in 1918, and organized graduate instruction leading to both the Master's and the Doctor's degree was undertaken. The faculty of the Graduate School includes all members of the various faculties who give instruction in approved graduate courses. The general administrative functions of the graduate faculty are delegated to a Graduate Council, of which the Dean of the Graduate School is chairman.

LIBRARIES

In addition to the resources of the University libraries, the great libraries of the National Capital are easily available for reference work. Because of the proximity of these libraries to College Park they are a valuable asset to research and graduate work at the University of Maryland.

The library building at College Park contains a number of seminar rooms and other desirable facilities for graduate work.

THE GRADUATE CLUB

The graduate students maintain an active Graduate Club. Several meetings for professional and social purposes are held during the year. Students working in different departments have an opportunity to become acquainted with one another and thus profit by the cultural values derived from association with persons working in different fields.

GENERAL REGULATIONS

ADMISSION

Graduates from recognized colleges regarded as standard by the institution and by regional or general accrediting agencies are admitted to the Graduate School. The applicant shall present an official transcript of his college record, which for unconditional admission shall show creditable completion of an undergraduate major in the subject chosen for specialization in the Graduate School.

Application blanks for admission to the Graduate School are obtained from the office of the Dean. After approval of the application, a matriculation card, signed by the Dean, is issued to the student. This card permits one to register in the Graduate School. After payment of the fee, the matriculation card is stamped and returned. It is the student's certificate of membership in the Graduate School, and may be called for at any succeeding registration.

Admission to the Graduate School does not necessarily imply admission to candidacy for an advanced degree.

REGISTRATION

All students pursuing graduate work in the University, even though they are not candidates for higher degrees, are required to register in the Graduate School at the beginning of each semester. Students taking graduate work in the Summer Session are also required to register in the Graduate School at the beginning of each session. In no case will graduate credit be given unless the student matriculates and registers in the Graduate School. Registration for the first semester is held in the Gymnasium-Armory on the date designated in the calendar. Students register for the second semester and the summer session in the office of the Dean, T-214, Agriculture Building.

The program of work for the semester or the summer session is arranged by the student with the major department and entered upon two course cards, which are signed first by the professor in charge of the student's major subject and then by the Dean of the Graduate School. One card is retained by the Dean. The student takes the other card, and, in case of a new student, also the matriculation card, to the Registrar's office, where registration is completed. Students will not be admitted to graduate courses until the registrar has certified to the instructor that registration has been completed. Course cards may be obtained at the Registrar's office or at the Dean's office. The heads of departments usually keep a supply of these cards in their respective offices.

GRADUATE COURSES

Graduate students must elect for credit in partial fulfillment of the requirements for higher degrees only courses designated *For Graduates*, or *For Graduates and Advanced Undergraduates*. Graduate students may elect courses numbered from 1 to 99 in the general catalogue but graduate credit will not be allowed for these. Students with inadequate preparation may be required to take some of these courses. No credit toward graduate degrees may be obtained by correspondence or extension study. Courses that are audited are registered for in the same way and at the same fees as other courses.

PROGRAM OF WORK

The professor who is selected to direct a student's thesis work is the student's adviser in the formulation of a graduate program, including suitable minor work, which is arranged in cooperation with the instructors. To encourage thoroughness in scholarship through intensive application, graduate students in the regular sessions are limited to a program of thirty credit hours for the year, including thesis work, which is valued at not less than six hours.

SUMMER GRADUATE WORK

Graduate work in the summer session may be counted as residence toward an advanced degree. By carrying approximately six semester hours of graduate work for four summer sessions at this institution, a student may fulfill the residence requirements for the master's degree, provided that the greater part of the thesis work can be done under direction during the periods between summer sessions. In some instances a fifth summer of residence may be required in order that a satisfactory thesis may be completed.

By special arrangement, graduate work may be pursued during the entire summer in some departments. Such students as graduate assistants, or others who may wish to supplement work done during the regular year, may satisfy one-third of an academic year's residence by full-time graduate work for eleven or twelve weeks, provided satisfactory supervision and facilities for summer work are available in their special fields.

The University publishes a special bulletin giving full information concerning the summer session and the graduate courses offered therein. The bulletin is available upon application to the Registrar of the University.

GRADUATE WORK IN PROFESSIONAL SCHOOLS AT BALTIMORE

Graduate courses and opportunities for research are offered in some of the professional schools at Baltimore. Students pursuing graduate work in the professional schools must register in the Graduate School, and meet the same requirements and proceed in the same way as do graduate students in other departments of the University.

Graduate courses in the professional schools are listed in the Graduate School announcements.

GRADUATE WORK BY SENIORS IN THIS UNIVERSITY

Seniors who have completed all their undergraduate courses in this University by the end of the first semester, and who continue their residence in the University for the remainder of the year, are permitted to register in the Graduate School and secure the privileges of its membership, even though the bachelor's degree is not conferred until the close of the year.

A senior of this University who has nearly completed the requirements for the undergraduate degree may, with the approval of his undergraduate Dean and the Dean of the Graduate School, register in the undergraduate college for graduate courses, which may later be transferred for graduate credit toward an advanced degree at this University, but the total of undergraduate and graduate courses must not exceed fifteen credits for the semester. Graduate credits earned during the senior year may not be used to shorten the residence period required for advanced degrees.

ADMISSION TO CANDIDACY FOR ADVANCED DEGREES

Application for admission to candidacy for the Master's and for the Doctor's degree is made on application blanks which are obtained at the office of the Dean of the Graduate School. These are filled out in duplicate and are acted upon by the Graduate Council. An official transcript of the candidate's undergraduate record and any graduate courses completed at other institutions must be filed in the Dean's office before the application can be considered.

Admission to candidacy in no case assures the student of a degree, but merely signifies he has met all the formal requirements and is considered by his instructors sufficiently prepared and able to pursue such graduate study and research as are demanded by the requirements of the degree sought. The candidate must show superior scholarship by the type of graduate work already completed.

Application for admission to candidacy is made at the time stated in the sections dealing with the requirements for the degree sought.

REQUIREMENTS FOR THE DEGREES OF MASTER OF ARTS AND MASTER OF SCIENCE

Advancement to Candidacy. Each candidate for the Master's degree is required to make application for admission to candidacy not later than the date when instruction begins for the second semester of the academic year in which the degree is sought, but not until at least twelve semester course hours of graduate work have been completed. An average grade of "B" in all major and minor subjects is required.

Minimum Residence. A residence of at least one full academic year, or its equivalent, at this institution, is required.

Course Requirements. A minimum of twenty-four semester hours, exclusive of research, with an average "B" grade in courses approved for grad-

uate credit is required for the Master's degree. If the student is inadequately prepared for the required graduate courses, either in the major or minor subjects, additional courses may be required to supplement the undergraduate work. Of the twenty-four hours required in graduate courses, not less than twelve semester hours and not more than sixteen semester hours must be earned in the major subject. The remaining credits must be outside the major subject and must comprise a group of coherent courses intended to supplement and support the major work. Not less than one-half of the total required course credits for the Master's degree, or a minimum of twelve, must be selected from courses numbered 200 or above. The entire course of study must constitute a unified program approved by the student's major adviser and by the Dean of the Graduate School.

Transfer of Credit. Credit, not to exceed six hours, obtained at other recognized institutions may be transferred and applied to the course requirements of the Master's degree, provided that the work was of graduate character, and provided it is approved for inclusion in the student's graduate program at the University of Maryland. This transfer of credit is approved by the Graduate Council when the student is admitted to candidacy for the degree. Acceptance of the transferred credit does not reduce the minimum residence period of one academic year. The candidate is subject to final examination by this institution in all work offered for the degree.

Thesis. In addition to the twenty-four semester hours in graduate courses a satisfactory thesis is required of all candidates for the Master's degree. It must demonstrate the student's ability to do independent work and it must be acceptable in literary style and composition. It is assumed that the time devoted to thesis work will not be less than the equivalent of six semester hours earned in graduate courses. With the approval of the student's major professor and the Dean of the Graduate School, the thesis in certain cases may be prepared *in absentia* under direction and supervision of a member of the faculty of this institution.

The original copy of the thesis must be deposited in the office of the Graduate School not later than two weeks before commencement. An abstract of the contents of the thesis, 200 to 250 words in length, must accompany it. A manual giving full directions for the physical make-up of the thesis is in the hands of each professor who directs thesis work, and should be consulted by the student before the typing of the manuscript is begun. Individual copies of this manual may be obtained by the student at the Dean's office at nominal cost.

Final Examination. The final oral examination is conducted by a committee appointed by the Dean of the Graduate School. The student's adviser acts as the chairman of the committee. The other members of the committee are persons under whom the student has taken most of his major and minor courses. The chairman and the candidate are notified of the personnel of the examining committee at least one week prior to the period set for oral examinations. The chairman of the committee selects the exact

time and place for the examination and notifies the other members of the committee and the candidate. The examination should be conducted within the dates specified and a report of the committee sent to the Dean as soon as possible after the examination. A special form for this purpose is supplied to the chairman of the committee. Such a report is the basis upon which recommendation is made to the faculty that the candidate be granted the degree sought. The period for the oral examination is usually one hour.

The examining committee also approves the thesis, and it is the candidate's obligation to see that each member of the committee has ample opportunity to examine a copy of the thesis prior to the date of the examination.

A student will not be admitted to final examination until all other requirements for the degree have been met.

REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

Advancement to Candidacy. Candidates for the Doctor's degree must be admitted to candidacy not later than one academic year prior to the granting of the degree. Applications for admission to candidacy for the Doctor's degree are filled out by the student and submitted to his major department for further action and transmission to the Dean of the Graduate School not later than the first Wednesday in October of the academic year in which the degree is sought.

The applicant must have obtained from the head of the Modern Language Department a statement that he possesses a reading knowledge of French and German. Preliminary examinations or such other substantial tests as the departments may elect are also required for admission to candidacy.

Residence. Three years of full-time resident graduate study are required. The first two of the three years may be spent in other institutions offering standard graduate work. On a part-time basis the time needed will be correspondingly increased. All work at other institutions that is transferred in partial fulfillment of the requirements for the Ph.D. degree is approved by the Graduate Council, upon recommendation of the department concerned, at the time the student is admitted to candidacy for the degree. The degree is not given merely as a certificate of residence and work, but is granted only upon sufficient evidence of high attainments in scholarship, and ability to carry on independent research in the special field in which the major work is done.

Major and Minor Subjects. The candidate must select a major and one or two closely related minor subjects. The minor work required varies from twenty-four to thirty hours at the discretion of the department concerned. The remainder of the required residence is devoted to intensive study and research in the major field. The amount of required course work in the major subject will vary with the department and the individual candidate. The candidate must register for a minimum of twelve hours of research.

Thesis. The ability to do independent research must be shown by a dissertation on some topic connected with the major subject. The original type-written copy and one clear carbon copy of the thesis, together with an abstract of the contents, 200 to 250 words in length, must be deposited in the office of the Dean at least three weeks before commencement. One or two extra copies of the thesis should be provided for use of members of the examining committee prior to the date of the final examination. The thesis is later printed in such form as the committee and the Dean may approve, and fifty copies are deposited in the University library.

A manual giving full directions for the physical make-up of the thesis is in the hands of each professor who directs thesis work and should be consulted by the student before typing of the thesis is begun. Students may obtain copies of this manual at the Dean's office, at nominal cost.

Final Examination. The final oral examination is held before a committee appointed by the Dean. One member of this committee is a representative of the graduate faculty who is not directly concerned with the student's graduate work. One or more members of the committee may be persons from other institutions who are distinguished scholars in the student's major field.

The duration of the examination is approximately three hours, and covers the research work of the candidate as embodied in his thesis, and his attainments in the fields of his major and minor subjects. The other detailed procedures are the same as those stated for the Master's examination.

RULES GOVERNING LANGUAGE EXAMINATIONS FOR CANDIDATES FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

1. A candidate for the Doctor's degree must show in a written examination that he possesses a reading knowledge of French and German. The passages to be translated will be taken from books and articles in his specialized field. Some 300 pages of text from which the applicant wishes to have his examination chosen should be submitted to the head of the department of Modern Languages at least three days before the examination. The examination aims to test ability to use the foreign language for research purposes. It is presumed that the candidate will know sufficient grammar to distinguish inflectional forms and that he will be able to translate readily in two hours about 500 words of text with the aid of a dictionary.

2. Application for admission to these tests must be filed in the office of the Department of Modern Languages at least three days in advance of the tests.

3. No penalty is attached to failure in the examination, and the unsuccessful candidate is free to try again at the next date set for these tests.

4. Examinations are held near the office of the Department of Modern Languages, Arts and Sciences building, on the first Wednesdays in February, June, and October, at 2 p. m.

GRADUATE FEES

The fees paid by graduate students are as follows:

A matriculation fee of \$10.00. This is paid once only, upon admission to the Graduate School.

A fixed charge, each semester, at the rate of \$6.00 per semester credit hour for students carrying eight hours or less; for students carrying more than eight hours, \$50.00 for the semester.

A diploma fee (Master's degree), \$10.00.

A graduation fee, including hood (Doctor's degree), \$20.00.

Laboratory fees range from \$2.00 to \$8.00 a semester.

FELLOWSHIPS AND ASSISTANTSHIPS

Fellowships. A number of fellowships have been established by the University. A few industrial fellowships are also available in certain departments. The stipend for the University fellows is \$400 for the academic year and the remission of all graduate fees except the diploma fee.

Application blanks for University fellowships may be obtained from the office of the Graduate School. The application, with the necessary credentials, is sent by the applicant directly to the Dean of the Graduate School.

Fellows are required to render minor services prescribed by their major departments. The usual amount of service required does not exceed twelve clock hours per week. Fellows are permitted to carry a full graduate program, and they may satisfy the residence requirement for higher degrees in the normal time.

The selection of fellows is made by the departments to which the fellowships are assigned, with the approval of the dean or director concerned, but all applications must first be approved by the Dean of the Graduate School. The awards of University fellowships are on a competitive basis.

Graduate Assistantships. A number of teaching and research graduate assistantships are available in several departments. The compensation for these assistantships is \$800 a year and the remission of all graduate fees except the diploma fee. Graduate assistants are appointed for one year and they are eligible to reappointment. The assistant in this class devotes one-half of his time to instruction or to research in connection with Experiment Station projects, and he is required to spend two years in residence for the Master's degree. If he continues in residence for the Doctor's degree, he is allowed two-thirds residence credit for each academic year at this University. The minimum residence requirement from the Bachelor's degree, therefore, may be satisfied in four academic years and one summer, or three academic years and three summer sessions of eleven or twelve weeks each.

Other Assistants. Assistants not in the regular \$800 class are frequently allowed to take graduate courses if they are eligible for admission to the Graduate School. The stipend for these assistants varies with the services rendered, and it may or may not include the remission of graduate fees. The question of fees is decided in each individual case by the dean or director concerned when the stipend is arranged. The amount of graduate work these assistants are permitted to carry is determined by the head of the department, with the approval of the dean or director concerned. The Graduate Council, guided by the recommendation of the student's advisory committee, prescribes the required residence in each individual case at the time the student is admitted to candidacy.

Further information regarding assistantships may be obtained from the department or college concerned.

COMMENCEMENT

Attendance is required at the commencement at which the degree is conferred, unless the candidate is excused by the Dean of the Faculty.

Application for diploma must be filed in the office of the Registrar before March 1 of the year in which the candidate expects to obtain the degree.

Academic costume is required of all candidates at commencement. Candidates who so desire may purchase or rent caps and gowns at the Students' Supply Store. Order must be filed before March 20, but may be cancelled later if the student finds himself unable to complete his work for the degree.

SUMMER SESSION

WILLARD S. SMALL, *Director*

A Summer Session of six weeks is conducted at College Park. The program serves the needs of the following classes of students: (1) teachers and supervisors of the several classes of school work—elementary, secondary, vocational, and special; (2) regular students who are candidates for degrees; (3) graduate students; (4) special students not candidates for degrees.

Terms of Admission

The admission requirements for those who desire to become candidates for degrees are the same as for any other session of the University. Before registering, a candidate for a degree will be required to consult the Dean of the College or School in which he wishes to secure the degree. Teachers and special students not seeking a degree are admitted to the courses of the summer session for which they are qualified. All such selection of courses must be approved by the Director of the Summer Session.

Credits and Certificates

The semester hour is the unit of credit as in other sessions of the University. In the summer session, a course meeting five times a week for six weeks and requiring the standard amount of outside work has a value of two semester hours.

Courses satisfactorily completed will be credited by the State Department of Education towards satisfying certification requirements of all classes.

Summer Graduate Work

For persons wishing to do graduate work towards an advanced degree in the summer sessions, special arrangements are made supplementing the regular procedure. Teachers and other graduate students working for a degree on the summer plan must meet the same requirements as to admission, credits, scholarship, and examinations as do students enrolled in the other sessions of the University.

For detailed information in regard to the Summer Session, consult the special Summer Session announcement, issued annually in April.

DEPARTMENT OF MILITARY SCIENCE AND TACTICS

THOMAS D. FINLEY, *Lieut. Col. Infantry, U. S. Army, Professor*

RESERVE OFFICERS' TRAINING CORPS

The work in this department is based upon the provisions of Army Regulations No. 145-10, War Department.

Authorization

An infantry unit of the Senior Division of the Reserve Officers' Training Corps was established at the University under the provisions of the Act of Congress of June 3, 1916, as amended.

Organization

The unit is organized as a regiment of four battalions of three rifle companies each, and a band. All units are commanded by Advanced Course students, who have been selected for these commands on a basis of merit. The course of instruction is divided into two parts: the Basic Course and the Advanced Course.

Objectives

*Basic Course

The object of this course is to afford to students enjoying the privileges of State and Federal aided education an opportunity to be trained for positions involving leadership, within either the State or the nation. To this end the methods employed are designed to fit men mentally, physically, and morally for pursuits of peace or, if necessity requires, for national defense. A member of the R. O. T. C. is not in the Army of the United States, and membership in the unit carries no legal obligation to serve in the Army, or any of the armed forces.

**Advanced Course

The primary object of the Advanced Course is to provide military instruction and systematic training through the agency of civil educational institutions to selected students, to the end that they may qualify as reserve officers in the military forces of the United States. It is intended to attain this objective in accordance with the terms of the contract during the time the students are pursuing as undergraduates their general or professional studies, thus causing minimum interference with the preparatory requirements of their projected civil careers.

A student prior to enrollment in this course must have satisfactorily completed the basic course and must have indicated in writing his desire to

* Required of qualified students.

** Elective for qualified undergraduates in accordance with the contract.

undertake the course. The applicant further must obtain on this document the recommendation of both the Dean of his College and the Professor of Military Science and Tactics, and submit same to the President of the Institution for approval. No student will be enrolled in the Advanced Course without the approval of the President of the University.

Time Allotted

For first and second years, basic course, three periods a week of not less than one hour each are devoted to this work, of which at least one hour is utilized for theoretical instruction.

For third and fourth years, advanced course, elective, five periods a week of not less than one hour each are devoted to this work, of which at least three periods are utilized for theoretical instruction.

Physical Training

Physical training forms an important part of military instruction, and it is the policy of the Military Department to encourage and support the physical training given by civilian teachers, thus coöperating in an effort to promote a vigorous manhood.

Physical Examination

All members of the Reserve Officers' Training Corps are required to be examined physically at least once after entering the University.

Uniforms

Members of the Reserve Officers' Training Corps must appear in proper uniform at all military formations and at such other times as the Professor of Military Science and Tactics may designate with the approval of the President of the University.

Uniforms, or commutation in lieu of uniforms, for the Reserve Officers' Training Corps, are furnished by the Government. The uniforms are the regulation uniforms of the United States Army, with certain distinguishing features; or, if commutation of uniforms is furnished, then such uniforms as may be adopted by the University. Such uniforms must be kept in good condition by the students. They remain the property of the Government; and, though intended primarily for use in connection with military instruction, may be worn at other times unless the regulations governing their use are violated. The uniform will not be worn in part nor used while the wearer is engaged in athletic sports other than those required as a part of the course of instruction. A Basic Course uniform which is furnished to a student by the Government will be returned to the Military Department at the end of the year; or before, if a student severs his connection with the Department. In case commutation of uniforms is furnished, the uniform so purchased becomes the property of the student upon completion of two years' work.

Commutation

Students who elect the Advanced Course and who have signed the contract with the Federal Government to continue in the Reserve Officers' Training Corps for the two remaining years of the Course are entitled to a small per diem money allowance, for commutation of subsistence, payable quarterly from and including the date of contact, until they complete the course at the institution.

Summer Camps

An important and excellent feature of the Reserve Officers' Training Corps is the summer camp. In specially selected parts of the country, camps are held for a period not exceeding six weeks for students who are members of the Advanced Course Reserve Officers' Training Corps. These camps are under the close and constant supervision of army officers, and are intended primarily to give a thorough and comprehensive practical course of instruction in the different arms of the service.

Parents may feel assured that their sons are carefully watched and safeguarded. Wholesome surroundings and associates, work and healthy recreation are the keynote to contentment. Social life is not neglected, and the moral branch exercises strict censorship over all social functions.

The attendance at summer camps is compulsory only for students who are taking the advanced course, which, as has been previously stated, is elective.

Students who attend the summer camps are under no expense. The Government furnishes transportation from the institution to the camp and from the camp to the institution, or to the student's home, unless the mileage is greater than that from the camp to the institution. In this case, the amount of mileage from the camp to the institution is allowed the student. Clothing, quarters, and food are furnished. The Advanced Course students, in addition to receiving quarters and food, are paid sixty cents for each day spent in camp. To obtain credit for camp a student must be in attendance at camp at least 85 per cent of the prescribed camp period.

Commissions

(a) Each year, upon completion of the Advanced Course, students qualified for commissions in the Reserve Officers' Corps will be selected by the head of the institution and the professor of Military Science and Tactics.

(b) The number to be selected from each institution and for each arm of the service will be determined by the War Department.

(c) The University of Maryland has received a rating from the War Department of "Generally Excellent" for the past several years. This rating indicates that the work of its R. O. T. C. unit has been recognized by the Federal Government as being of a superior order. The "Generally Excellent" rating supersedes the former designation of "Distinguished College," which designation has been discontinued by the War Department for institutions such as this University.

Credits

Military instruction at this University is on a par with other university work, and the requirements of this department as to proficiency the same as those of other departments.

Students who have received military training at any educational institution under the direction of an army officer detailed as professor of military science and tactics may receive such credit as the professor of military science and tactics and the President may jointly determine.

PHYSICAL EDUCATION, RECREATION, AND ATHLETICS

The purpose of the program of physical education at the University is broadly conceived as the development of the individual student. To accomplish this purpose, physical examinations and classification tests are given the incoming students to determine the relative physical fitness of each. Upon the basis of the needs disclosed by these tests, and individual preferences, students are assigned to the various activities of the program.

Freshmen and sophomores assigned to physical education take three activity classes each week throughout the year. In the fall, soccer, touch football, and tennis are the chief activities; in the winter, basketball, volleyball, and other team games; and in the spring, track, baseball, and tennis. In addition to these team activities, sophomore students may elect a considerable number of individual sports, such as fencing, boxing, wrestling, horse-shoes, ping pong, bag punching, and the like.

An adequate program of intramural sports is conducted, also. Touch football and soccer in the fall, basketball and volleyball in the winter, baseball and track in the spring, are the chief activities in this program. Plaques, medals, and appropriate awards in all tournaments of the program are provided for the winning teams and individual members.

Every afternoon of the school session the facilities of the Physical Education Department are thrown open to all students for free unorganized recreation. Touch football, soccer, basketball, basket shooting, apparatus work, fencing, boxing, wrestling, bag punching, tennis, badminton, and ping pong are the most popular contests engaged in.

The University is particularly fortunate in its possession of excellent facilities for carrying on the activities of the program of physical education. A large modern gymnasium, a new field house, a number of athletic fields, tennis courts, baseball diamonds, running tracks, and the like, constitute the major part of the equipment.

In addition to the activities described above, the University sponsors a full program of intercollegiate athletics for men. Competition is promoted in varsity and freshman football, basketball, baseball, track, boxing, lacrosse, and tennis, which are all major sports of this program. The University is a member of the Southern Conference, the National Collegiate Athletic Association, and other national organizations for the promotion of amateur athletics.

The Department of Physical Education for Women has excellent facilities for conducting a full activities program. Seasonal team sports including hockey, soccer, speedball, basketball, volleyball, softball; individual sports, consisting of tennis, badminton, fencing, golf, archery, deck tennis, table tennis, and the like are offered. Opportunity is given for various types of dancing including, modern, tap, folk, and ballroom. The proximity of the

University to Washington and Baltimore provides excellent opportunity for groups to attend professional concerts in dance, as well as to participate in dance symposia.

The Women's Athletic Association sponsors and conducts intramural tournaments in the seasonal sports, sports days with neighboring colleges, and intercollegiate competition in rifle shooting.

The University also maintains curricula designed to train men and women students to teach physical education and coach in the high schools of the state, and to act as leaders in recreational programs in communities.

For a description of the courses in Physical Education and Recreation, see College of Education, and Section III, Description of Courses.

SCHOOL OF DENTISTRY

J. BEN ROBINSON, *Dean.*

Faculty Council

GEORGE M. ANDERSON, D.D.S., F.A.C.D.

ROBERT P. BAY, M.D., F.A.C.S.

BRICE M. DORSEY, D.D.S.

OREN H. GAVER, D.D.S., F.A.C.D.

BURT B. IDE, D.D.S., F.A.C.D.

ROBERT L. MITCHELL, Phar.D., M.D.

ALEXANDER H. PATERSON, D.D.S., F.A.C.D.

J. BEN ROBINSON, D.D.S., F.A.C.D.

LEO A. WALZAK, D.D.S.

HISTORY

The University of Maryland was organized December 28, 1807, as the College of Medicine of Maryland. On December 29, 1812, the University of Maryland charter was issued to the College of Medicine of Maryland. There were at that period but four medical schools in America—the University of Pennsylvania, founded in 1765; the College of Physicians and Surgeons of New York, in 1767; Harvard University, in 1782; and Dartmouth College, in 1797.

The first lectures on dentistry in America were delivered by Dr. Horace H. Hayden in the University of Maryland, School of Medicine, between the years 1821 and 1825. These lectures were interrupted in 1825 by internal dissension in the School of Medicine, but were resumed in the year 1837. It was Dr. Hayden's idea that dentistry merited greater attention than had been given it by medical instruction, and he undertook to develop this specialty as a branch of medicine. With this thought in mind he, with the support of Dr. Chapin A. Harris, appealed to the Faculty of Physic of the University of Maryland for the creation of a department of dentistry as a part of the medical curriculum. The request having been refused, an independent college was decided upon. A charter was applied for and granted by the Maryland Legislature February 1, 1840. The first faculty meeting was held February 3, 1840, at which time Dr. H. H. Hayden was elected President and Dr. C. A. Harris, Dean. The introductory lecture was delivered by Dr. Harris on November 3, 1840, to the five students matriculated in the first class. Thus was the Baltimore College of Dental Surgery, the first and oldest dental school in the world, created as the foundation of the present dental profession.

In 1873, the Maryland Dental College, an offspring of the Baltimore College of Dental Surgery, was organized and continued instruction in dental

subjects until 1879, at which time it was consolidated with the Baltimore College of Dental Surgery. A department of dentistry was organized at the University of Maryland in the year 1882, graduating a class each year from 1883 to 1923. This school was chartered as a corporation and continued as a privately owned and directed institution until 1920, when it became a State institution. The Dental Department of the Baltimore Medical College was established in 1895, continuing until 1913, when it merged with the Dental Department of the University of Maryland.

The final combining of the dental educational interests of Baltimore was effected June 15, 1923, by the amalgamation of the student bodies of the Baltimore College of Dental Surgery and the University of Maryland, School of Dentistry, the Baltimore College of Dental Surgery becoming a distinct department of the State University under State supervision and control. Thus we find in the Baltimore College of Dental Surgery, Dental School, University of Maryland, a merging of the various efforts at dental education in Maryland. From these component elements have radiated developments of the art and science of dentistry until the strength of its alumni is second to none either in number or degree of service to the profession.

BUILDING

The School of Dentistry now occupies its new building at the northwest corner of Lombard and Greene Streets, Baltimore, adjoining the University Hospital, being so situated that it offers unusual opportunity for abundant clinic material. The new building provides approximately 45,000 square feet of floor space, is fireproof, and is ideally lighted and ventilated. A sufficient number of large lecture rooms and classrooms, a library and reading room, science laboratories, technic laboratories, clinic rooms, locker rooms, etc., are provided. The building is furnished with new equipment throughout with every accommodation necessary for satisfactory instruction under comfortable arrangements and pleasant surroundings. The large clinic wing accommodates one hundred and thirty-nine chairs. The following clinic departments have been provided: Operative, Prosthetic (including Crown and Bridge and Ceramics), Anesthesia and Surgery, Pathology, Orthodontia, Pedodontia, Radiodontia, and Photography. Modern units with electric engines have been installed in all clinics, while provision has been made for the use of electric equipment in all technic laboratories.

The present building program of the University of Maryland provides for an expansion of the physical facilities of the School of Dentistry. Approximately 20,000 square feet of additional floor space will be available. This will be used to expand clinical, research, and post-graduate programs.

COURSE OF INSTRUCTION

The Baltimore College of Dental Surgery, Dental School, University of Maryland offers a four-year course in dentistry devoted to instruction in the medical sciences, the dental sciences, the ancillary sciences, and clinical

practice. Instruction consists of didactic lectures, laboratory instruction, demonstrations, conferences, and quizzes. Topics are assigned for collateral reading to train the student in the values and use of dental literature.

REQUIREMENTS FOR ADMISSION TO THE SCHOOL OF DENTISTRY

Applicants for admission to the dental curriculum must have completed successfully two years of work in an accredited college of arts and sciences. These credits must include not less than six semester hours each in English, Biology, and Physics, and twelve hours in Chemistry, including Organic Chemistry.

REQUIREMENTS FOR MATRICULATION

Care is observed in selecting students to begin the study of dentistry, through a strict adherence to proved ability in secondary education and in the completion of prescribed courses in predental collegiate training. The requirements for admission and the academic regulations of the College of Arts and Sciences are strictly adhered to by the School of Dentistry.

APPLICATION PROCEDURE

Application blanks may be obtained from the office of the Dean. Each applicant should fill in this blank completely and mail it, together with the application fee and photographs, to the Director of Admissions, University of Maryland, Baltimore. The notes on the reverse side of the blank should be observed carefully.

A certificate of entrance will be issued to each qualified applicant.

REQUIREMENTS FOR ADMISSION TO THE PREDENTAL COURSE

The requirement for admission is graduation from an accredited secondary school which requires for graduation a four-year course of not less than fifteen units. The equivalent in entrance examinations may be offered by a non-graduate of a secondary school.

REQUIRED: English (I, II, III, IV), 3 units; algebra to quadratics, 1 unit; plane geometry, 1 unit; history, 1 unit; science, 1 unit. Total 7 units.

ELECTIVE: Agriculture, astronomy, biology, botany, chemistry, civics, drawing, economics, general science, geology, history, home economics, vocational subjects, languages, mathematics, physical geography, physics, zoology, or any other subject offered in a standard high or preparatory school for which graduation credit is granted toward college or university entrance. Eight units must be submitted from this group.

CURRICULUM

	Semesters	
	I	II
<i>Freshman Year</i>		
Survey and Composition I (Eng. 1y).....	3	3
College Algebra and Analytic Geometry (Math. 8f or 11f and 10s)	3	3
General Chemistry (Chem. 1y).....	4	4
Reading and Speaking (Speech 1y).....	1	1
Invertebrate Morphology (Zool. 3f).....	4	—
Comparative Vertebrate Morphology (Zool. 4s).....	—	4
Mechanical Drawing (Dr. 4y).....	1	1
Basic R. O. T. C. (M. I. 1y) or		
Physical Education (Phys. Ed. 1y or 2y and 4y).....	1	1
Freshman Lectures	—	—
	17	17
<i>Sophomore Year</i>		
Elementary Organic Chemistry (Chem. 8Ay and 8By).....	4	4
General Physics (Phys. 1y).....	4	4
French (French 1y or French 3y) or		
German (German 1y or German 3y).....	3	3
Electives (Humanities, Social Sciences).....	4	4
Basic R. O. T. C. (M. I. 2y) or		
Physical Education (Phys. Ed. 3y or 6y and 8y).....	2	2
	—	—
	17	17

The equivalent of the above curriculum is offered in the Baltimore branch of the University.

Fees for the Predental Course

Application fee (paid at time of filing application for admission)	\$2.00
Matriculation fee (paid at the time of enrollment).....	10.00
*Tuition for the session, resident student.....	220.00
*Tuition for the session, non-resident student.....	270.00
Laboratory fee (each session).....	50.00
Locker fee (each session).....	3.00
Laboratory breakage deposit (each session).....	5.00
Penalty for late registration.....	5.00
Examination taken out of class and re-examinations.....	5.00

Student Activity Fee—Special

For the purpose of administering and disciplining various student activities the student body has voted a fee of \$10.00 to be paid at the opening of the school year to the treasurer of the Student Activity Committee.

*Definition of residence given on page 64.

Dental Curriculum

The curriculum is described in full in the bulletin of the School of Dentistry.

Transfer Students

Applicants desiring to transfer from another recognized dental school must have had creditable records at the schools previously attended.

Applicants carrying conditions or failures in any year of their previous dental instruction will not be considered. All records must show an average grade of 5% over the passing mark of the schools in which the transfer credits were earned. Applicants whose records show habitual failures and conditions will not be considered for admission. The transferring student must satisfy all requirements for admission.

Attendance Requirements

In order to receive credit for a full session, each student must have entered and be in attendance on the day the regular session opens, at which time lectures to all classes begin, and remain until the close of the session, the dates for which are announced in the calendar of the annual catalogue.

Regular attendance is demanded. Students with less than eighty-five per cent attendance in any course will be denied the privilege of final examination in any and all such courses. In certain unavoidable circumstances of absence the Dean may honor excuses, but students with less than eighty-five per cent attendance will not be promoted to the next succeeding class.

In cases of serious illness, as attested by a physician, students may register not later than the twentieth day following the advertised opening of the regular session. Students may register and enter not later than ten days after the beginning of the session, but such delinquency will be charged as absences from classes.

Promotion

To be promoted to the next succeeding year students must have passed courses amounting to at least 80 per cent of the total schedule hours of the year, and must have an average of 80 per cent on all subjects passed.

A grade of 75 per cent is passing. A grade between 60 per cent and passing is a condition. A grade below 60 per cent is a failure. A condition may be removed by a reëxamination. In such effort, failure to make a passing mark is recorded as a failure in the course. A failure can be removed only by repeating the course. Students with combined conditions and failures amounting to 40 per cent of the schedule hours of the year will not be permitted to proceed with their classes. Students carrying conditions will not be admitted to senior standing; students in all other classes may carry one condition to the next succeeding year. All conditions and failures must be removed within twelve months from the time at which they were incurred.

Equipment

A complete list of necessary instruments and materials for technic and clinic courses, and text books for lecture courses will be announced for the various classes. Each student will be required to provide himself with whatever is necessary to meet the needs of his course, and present same to an assigned instructor for inspection. No student will be permitted to go on with his class who does not meet this requirement.

Deportment

The profession of dentistry demands, and the School of Dentistry requires evidence of good moral character of its students. The conduct of the student in relation to his work and fellow students will indicate his fitness to be taken into the confidence of the community as a professional man. Integrity, sobriety, temperate habits, truthfulness, respect for authority and associates, and honesty in the transaction of business affairs as a student will be considered as evidence of good moral character necessary to the granting of a degree.

Requirements for Graduation

The degree of Doctor of Dental Surgery is conferred upon a candidate who has met the following conditions:

1. A candidate must furnish documentary evidence that he has attained the age of 21 years.
2. A candidate for graduation shall have attended the full four-year course of study of the dental curriculum, the last year of which shall have been spent in this institution.
3. He will be required to show a general average of at least 80 per cent during the full course of study.
4. He shall have satisfied all technic and clinic requirements of the various departments.
5. He shall have paid all indebtedness to the college prior to the beginning of final examinations, and must have adjusted his financial obligations in the community satisfactorily to those to whom he may be indebted.

FEEES FOR THE DENTAL COURSE

Application fee (paid at time of filing formal application for admission)	\$2.00
Matriculation fee (paid at time of enrollment).....	10.00
*Tuition for the session, resident student.....	275.00
*Tuition for the session, non-resident student.....	375.00
Dissecting fee (first semester, freshman year).....	15.00

*Definition of residence given on page 64.

Laboratory fee (each session).....	20.00
Locker fee—freshman and sophomore years (first semester).....	3.00
Locker fee—junior and senior years (first semester).....	5.00
Laboratory breakage deposit—freshman and sophomore years (first semester)	5.00
Graduation fee (paid with second semester fees of senior year).....	15.00
Penalty fee for late registration.....	5.00
Examinations taken out of class and reexaminations.....	5.00
One certified transcript of record will be issued to each student free of charge. Each additional copy will be issued only on payment of	1.00

Student Activity Fee—Special

For the purpose of administering and disciplining various student activities the student body has voted a fee of \$10.00 to be paid at the opening of the school year to the treasurer of the Student Activity Committee.

Registration

The registration of a student in any school or college of the University shall be regarded as a registration in the University of Maryland, but when such student transfers to a professional school of the University or from one professional school to another, he must pay the usual matriculation fee required by each professional school.

A student who neglects or fails to register prior to or within the day or days specified for his school, will be called upon to pay a fine of \$5.00. The last day of registration with fine added to regular fees is Saturday at noon of the week in which instruction begins, following the specified registration period. (This rule may be waived only on the written recommendation of the Dean.)

Each student is required to fill in a registration card for the office of the Registrar, and pay to the Comptroller one-half of the tuition fee in addition to all other fees noted as payable first semester before being admitted to class work at the opening of the session. The remainder of tuition and second semester fees must be in the hands of the Comptroller on the registration day for the second semester.

According to the policy of the School of Dentistry no fees will be returned. In case the student discontinues his course, any fees paid will be credited to a subsequent course, but are not transferable.

The above requirements will be rigidly enforced.

Definition of Resident Status of Student

Students who are minors are considered to be resident students if, at the time of their registration their parents* have been residents of this State for at least one year.

*The term "parents" includes persons who, by reason of death or other unusual circumstances, have been legally constituted the guardians of or stand *in loco parentis* to such minor students.

Adult students are considered to be resident students if, at the time of their registration, they have been residents of this state for at least one year; provided such residence has not been acquired while attending any school or college in Maryland.

The status of the residence of a student is determined at the time of his first registration in the University, and may not thereafter be changed by him unless, in the case of a minor, his parents* move to and become legal residents of this state by maintaining such residence for at least one full calendar year. However, the right of the student (minor) to change from a non-resident to a resident status must be established by him prior to registration for a semester in any academic year.

Summer Courses

Aside from and independent of the regular session, special courses are offered during the summer recess. The course in clinical instruction is conducted from June 1 to August 1 and from September 1 to 16 inclusive. The course is open only to students registered in the school. It offers opportunities to students carrying conditions in the clinic from the preceding session as well as those who desire to gain more extended practice during their training period. The clinics are under the direction of capable demonstrators, full credit being given for all work done.

The Gorgas Odontological Society

The Gorgas Odontological Society was organized in 1916 as an honorary student dental society with scholarship as a basis for admission. The society is named after Dr. Ferdinand J. S. Gorgas, a pioneer in dental education, a teacher of many years experience, and during his life a great contributor to dental literature. It was with the idea of perpetuating his name that the society adopted it.

Students become eligible for membership at the beginning of their junior year if, during their preceding years of the dental course, they have attained a general average of 85 per cent or more in all of their studies. Meetings are held once each month, and are addressed by prominent dental and medical men, an effort being made to obtain speakers not connected with the University. The members have an opportunity, even while students, to hear men associated with other educational institutions.

Omicron Kappa Upsilon

Phi Chapter of Omicron Kappa Upsilon honorary dental fraternity was chartered at the Baltimore College of Dental Surgery, Dental School, University of Maryland, during the session of 1928-1929. Membership in the fraternity is awarded to a number not exceeding twelve per cent of the graduating class. This honor is conferred upon students who through their professional course of study creditably fulfill all obligations as students, and whose conduct, earnestness, evidence of good character, and high scholarship recommend them to election.

Scholarship Loans

A number of scholarship loans from various organizations and educational foundations have been available to students in the School of Dentistry. These loans are offered on the basis of excellence in scholastic attainment and the need on the part of students for assistance in completing their course in dentistry. It has been the policy of the Faculty to recommend only students in the last two years for such privileges.

The Henry Strong Educational Foundation—From this fund, established under the will of General Henry Strong, of Chicago, an annual allotment is made to the Baltimore College of Dental Surgery, Dental School, University of Maryland, for scholarship loans available for the use of young men and women students under the age of twenty-five. Recommendations for the privileges of these loans are limited to students in the junior and senior years. Only students who through stress of circumstances require financial aid and who have demonstrated excellence in educational progress are considered in making nominations to the secretary of this fund.

The Edward S. Gaylord Educational Endowment Fund—Under a provision of the will of the late Dr. Edward S. Gaylord, of New Haven, Conn., an amount approximating \$16,000 was left to the Baltimore College of Dental Surgery, Dental School, University of Maryland, the proceeds of which are to be devoted to aiding worthy young men in securing dental education.

Alumni Association

The first annual meeting of the Society of the Alumni of the Baltimore College of Dental Surgery was held in Baltimore, March 1, 1849. This organization has continued in existence to the present, its name having been changed to The National Alumni Association of the Baltimore College of Dental Surgery, Dental School, University of Maryland.

THE SCHOOL OF LAW

ROGER HOWELL, *Dean*

THE FACULTY COUNCIL

HON. HENRY D. HARLAN, A.M., LL.B., LL.D.
RANDOLPH BARTON, JR., ESQ., A.B., LL.B.
EDWIN T. DICKERSON, ESQ., A.M., LL.B.
CHARLES MCHENRY HOWARD, ESQ., A.B., LL.B.
HON. MORRIS A. SOPER, A.B., LL.B.
HON. W. CALVIN CHESNUT, A.B., LL.B.
G. RIDGELY SAPPINGTON, ESQ., LL.B.
ROGER HOWELL, ESQ., A.B., Ph.D., LL.B.
EDWIN G. W. RUGE, ESQ., A.B., LL.B.
G. KENNETH REIBLICH, A.B., Ph.D., J.D., LL.M.
JOHN S. STRAHORN, JR., A.B., LL.B., S.J.D., J.S.D.

While the first faculty of law of the University of Maryland was chosen in 1813, and published in 1817 "A Course of Legal Study Addressed to Students and the Profession Generally," which the North American Review pronounced to be "by far the most perfect system for the study of law which has ever been offered to the public," and which recommended a course of study so comprehensive as to require for its completion six or seven years, no regular school of instruction in law was opened until 1823. The institution thus established was suspended in 1836 for lack of proper pecuniary support. In 1869 the School of Law was reorganized, and in 1870 regular instruction therein was again begun. From time to time the course has been made more comprehensive, and the staff of instructors increased in number. Its graduates now number more than three thousand, and included among them are a large proportion of the leaders of the Bench and Bar of the State and many who have attained prominence in the profession elsewhere.

The Law School has been recognized by the Council of the Section of Legal Education of the American Bar Association as meeting the standards of the American Bar Association, and has been placed upon its approved list.

The Law School is a member of the Association of American Law Schools, an association composed of the leading law schools in the United States, member schools being required to maintain certain high standards relating to entrance requirements, faculty, library, and curriculum.

The Law School is also registered as an approved school on the New York Regents' list.

The Law School Building, erected in 1931, is located at Redwood and Greene Streets in Baltimore. In addition to classrooms and offices for

the Law faculty, it contains a large auditorium, practice-court room, students' lounge and locker rooms, and the law library, the latter containing a collection of carefully selected text-books, English and American reports, leading legal periodicals, digests, and standard encyclopedias. No fee is charged for the use of the library, which is open from 9.00 A. M. to 10.30 P. M., except on Saturday, when it closes at 5.00 P. M.

Course of Instruction

The School of Law is divided into two divisions, the Day School and the Evening School. The same curriculum is offered in each school, and the standards of work and graduation requirements are the same.

The Day School course covers a period of three years of thirty-two weeks each, exclusive of holidays. The class sessions are held during the day, chiefly in the morning hours. The Practice Court sessions are held on Monday evenings from 8.00 to 10.00 P. M.

The Evening School course covers a period of four years of thirty-six weeks each, exclusive of holidays. The class sessions are held on Monday, Wednesday, and Friday evenings of each week from 6.30 to 9.30 P. M. This plan leaves the alternate evenings for study and preparation by the student.

The course of instruction in the School of Law is designed thoroughly to equip the student for the practice of his profession when he attains the Bar. Instruction is offered in the various branches of the common law, of equity, of the statute law of Maryland, and of the public law of the United States. The course of study embraces both the theory and practice of the law, and aims to give the student a broad view of the origin, development, and function of law, together with a thorough practical knowledge of its principles and their application. Analytical study is made of the principles of substantive and procedural law, and a carefully directed practice court enables the student to get an intimate working knowledge of procedure.

Special attention is given to the statutes in force in Maryland, and to any peculiarities of the law in that State, where there are such. All of the subjects upon which the applicant for the Bar in Maryland is examined are included in the curriculum. But the curriculum includes all of the more important branches of public and private law, and is well designed to prepare the student for admission to the Bar of other States.

Requirements for Admission

The requirements for admission are those of the Association of American Law Schools. Applicants for admission as candidates for a degree are required to produce evidence of the completion of at least two years of college work; that is, the completion of at least one-half the work acceptable for a Bachelor's degree granted on the basis of a four-year period of study by the University of Maryland or other principal college or university in this State.

To meet this requirement, a candidate for admission must present at least sixty semester hours (or their equivalent) of college work taken in an institution approved by standard regional accrediting agencies and exclusive of

credit earned in non-theory courses in military science, hygiene, domestic arts, physical education, vocal or instrumental music, or other courses without intellectual content of substantial value. Such pre-legal work must have been done in residence, no credit being allowed for work done in correspondence or extension courses, and must have been passed with a scholastic average at least equal to the average required for graduation in the institution attended.

In compliance with the rules of the Association of American Law Schools, a limited number of special students, not exceeding 10 per cent of the average number of students admitted as beginning regular law students during the two preceding years, applying for admission with less than the academic credit required of candidates for the law degree, may be admitted as candidates for the certificate of the school, but not for the degree, where, in the opinion of the Faculty Council, special circumstances, such as the maturity and apparent ability of the student, seem to justify a deviation from the rule requiring at least two years of college work. Such applicants must be at least twenty-three years of age and specially equipped by training and experience for the study of law.

Combined Program of Study Leading to the Degrees of Bachelor of Arts and Bachelor of Laws

The University offers a combined program in arts and law leading to the degrees of Bachelor of Arts and Bachelor of Laws.

Students pursuing this combined program in college and pre-legal subjects will spend the first three years in the College of Arts and Sciences at College Park. The fourth year they will register in the School of Law, and upon the successful completion of the work of the first year in the Day School, or the equivalent work in the Evening School, the degree of Bachelor of Arts will be awarded. The degree of Bachelor of Laws will be awarded upon the completion of the work prescribed for graduation in the School of Law.

Details of the combined course may be had upon application to the Registrar, University of Maryland, College Park, Md., or by reference to page 123.

Combined Program of Study Leading to the Degrees of Bachelor of Science and Bachelor of Laws.

The University also offers a combined program in commerce and law leading to the degrees of Bachelor of Science and Bachelor of Laws.

Students pursuing this combined program will spend the first three years in the College of Commerce at College Park. In the fourth year they will register in the School of Law, and upon the successful completion of the work of the first year in the Day School, or the equivalent thereof in the Evening School, will be awarded the degree of Bachelor of Science. The degree of Bachelor of Laws will be awarded upon the completion of the work prescribed for graduation in the School of Law.

Details of the combined course may be had upon application to the Registrar, University of Maryland, College Park, Md., or by reference to page 137.

Advanced Standing

Students complying with the requirements for admission to the school who have, in addition, successfully pursued the study of law elsewhere in a law school which is either a member of the Association of American Law Schools or approved by the American Bar Association, may, in the discretion of the Faculty Council, upon presentation of a certificate from such law school showing an honorable dismissal therefrom, and the successful completion of equivalent courses therein, covering at least as many hours as are required for such subjects in this school, receive credit for such courses and be admitted to advanced standing. No credit will be given for study pursued in a law office, and no degree will be conferred until after one year of residence and study at this school.

Fees and Expenses

The charges for instruction are as follows:

Registration fee to accompany application.....	\$ 2.00
Matriculation fee, payable on first registration.....	10.00
Diploma fee, payable upon graduation.....	15.00

Tuition fee, per annum:

Day School	\$200.00
Evening School	150.00

An additional tuition fee of \$50.00 per annum must be paid by students who are non-residents of the State of Maryland.

The tuition fee is payable in two equal instalments, one-half at the time of registration for the first semester, and one-half at the time of registration for the second semester.

Further information and a special catalogue of the School of Law may be had upon application to the School of Law, University of Maryland, Redwood and Greene Streets, Baltimore, Md.

**THE UNIVERSITY OF MARYLAND
SCHOOL OF MEDICINE
AND
COLLEGE OF PHYSICIANS AND SURGEONS**

J. M. H. ROWLAND, *Dean*

MEDICAL COUNCIL

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CLYDE A. CLAPP, M.D.
JOHN C. KRANTZ, JR., Ph.D.
WALTER D. WISE, M.D.
J. MASON HUNDLEY, JR., M.A., M.D.
WILLIAM R. AMBERSON, Ph.D.
LOUIS H. DOUGLASS, M.D.

The School of Medicine of the University of Maryland is one of the oldest foundations for medical education in America, ranking fifth in point of age among the medical colleges of the United States. In the school building at Lombard and Greene Streets in Baltimore was founded one of the first medical libraries and the first medical college library in the United States.

Here for the first time in America dissecting was made a compulsory part of the curriculum; here instruction in Dentistry was first given (1837); and here were first installed independent chairs for the teaching of diseases of women and children (1867), and of eye and ear diseases (1873).

This School of Medicine was one of the first to provide for adequate clinical instruction by the erection in 1823 of its own hospital, and in this hospital intramural residency for senior students first was established.

Clinical Facilities

The University Hospital, property of the University, is the oldest institution for the care of the sick in Maryland. It was opened in September,

1823, and at that time consisted of four wards, one of which was reserved for eye cases.

Besides its own hospital, the School of Medicine has control of the clinical facilities of the Mercy Hospital, in which were treated last year 8,969 persons.

In connection with the University Hospital, an outdoor obstetrical clinic is conducted. During the past year 1,932 cases were delivered in the University Hospital and under supervision in the Outdoor Clinic.

The hospital now has about 400 beds—for medical, surgical, obstetrical, and special cases; and furnishes an excellent supply of clinical material for third-year and fourth-year students.

Dispensaries and Laboratories

The dispensaries associated with the University Hospital and Mercy Hospital are organized on a uniform plan in order that teaching may be the same in each. Each dispensary has departments of Medicine, Surgery, Oncology, Eye and Ear, Genito-Urinary, Gynecology, Gastro-Enterology, Oral Surgery, Cardiology, Pediatrics, Neurology, Orthopedics, Proctology, Psychiatry, Dermatology, Throat and Nose, and Tuberculosis. All students in their junior year work each day during one-third of the year in the Departments of Medicine and Surgery of the dispensaries. In their senior year, all students work one hour each day in the special departments; 102,333 cases were treated last year, which fact gives an idea of the value of these dispensaries for clinical teaching.

Laboratories conducted by the University purely for medical purposes are as follows: Gross Anatomy, Histology and Embryology, Physiology, Bacteriology and Immunology, Biological Chemistry, Pharmacology, Pathology, Clinical Pathology, and Operative Surgery.

Prizes and Scholarships

The following prizes and scholarships are offered in the School of Medicine. (For details see School of Medicine Bulletin.)

Faculty Medal; Dr. A. Bradley Gaither Prize; Samuel M. Shoemaker Prize; Dr. Samuel Leon Frank Scholarship; Hitchcock Scholarships; Randolph Winslow Scholarship; University Scholarship; Frederica Gehrmann Scholarship; Dr. Leo Karlinsky Memorial Scholarship; Clarence and Genevra Warfield Scholarships; Israel and Cecelia A. Cohen Scholarship, and Dr. Horace Bruce Hetrick Scholarship.

Requirements for Admission

The minimum requirements for admission to the School of Medicine are as follows:

- (a) Graduation from an approved secondary school, or the equivalent in entrance examinations, and

- *(b) Three years of acceptable premedical credit earned in an approved college of arts and sciences. The quantity and quality of this pre-professional course of study shall be not less than that required for recommendation by the institution in which the premedical courses are being, or have been, studied.

The premedical curriculum shall include basic courses in

English
Biology (Invertebrate and Vertebrate Zoology are preferred to General Biology)
Inorganic Chemistry
Organic Chemistry
Physics
French or German,

and such elective courses as will complete a balanced three year schedule of study.

The elective courses should be taken from the following three groups:

<i>Humanities</i>	<i>Natural Sciences</i>	<i>Social Sciences</i>
English	Comparative Vertebrate	Economics
Scientific German, or	Anatomy	History
French (A reading	Embryology	Political Science
knowledge of either	Physical Chemistry or	Psychology
language is desirable,	Quantitative Analy-	Sociology, etc.
although German is	sis (Physical Chemis-	
preferred)	try preferred)	
Philosophy	Mathematics	
	Histological Technic†	

Not less than 36 semester hours (or the equivalent in quarter or session hours, or courses) should be taken in the humanities and social sciences.

Wherever possible, a premedical student should complete a four-year curriculum and earn the baccalaureate degree.

In accepting candidates for admission, preference will be given to those applicants who have high scholastic records in secondary school and college; satisfactory scores in the Moss Aptitude Test (which is given each fall by the Association of American Medical Colleges in the institutions that are preparing students for medicine); the most favorable letters of recommendation from their respective premedical committees, or from one instructor in each of the departments of biology, chemistry, and physics; and who in all other respects give every promise of becoming successful students and physicians of high standing.

*For admission to the Premedical Curriculum the requirements are the same as for the freshman class in the College of Arts and Sciences of the University with the prescribed addition of two years of one foreign language. (See Section I, Entrance.)

†Should not be taken in a three-year premedical preparation.

Application blanks may be secured by addressing the Committee on Admissions, School of Medicine, University of Maryland, Baltimore. Applications for admission will be received beginning October 1, 1939, for the incoming 1940 classes.

Candidates for admission who are accepted will receive certificates of entrance from the Director of Admissions of the University.

Expenses

*The following are the fees for students in the School of Medicine:

<i>Matriculation</i>	<i>Resident—Non-Resident</i>	<i>Laboratory</i>	<i>Graduation</i>
\$10.00 (only once)	\$450.00	\$600.00	\$25.00 (yearly)
			\$15.00

Estimated living expenses for students in Baltimore:

<i>Items</i>	<i>Low</i>	<i>Average</i>	<i>Liberal</i>
Books	\$50	\$75	\$100
College Incidentals	20	20	20
Board, eight months.....	200	250	275
Room rent	64	80	100
Clothing and Laundry.....	50	80	150
All other expenses.....	25	50	75
Total.....	\$409	\$556	\$720

*The above tuition fees applicable until the end of the session 1938-1939 only. The right is reserved to make changes in these fees whenever the authorities deem it expedient.

SCHOOL OF NURSING

ANNIE CRIGHTON, R.N., *Director and Superintendent of Nurses*

The University of Maryland School for Nurses was established in the year 1889. Since that time it has been an integral part of the University of Maryland, coming under the same government. The school is non-sectarian, the only religious services being morning prayers.

The new University of Maryland Hospital is a general hospital, containing about 400 beds. It is equipped to give young women a thorough course of instruction and practice in all phases of nursing.

Programs Offered

The program of study of the school is planned for two groups of students: (a) the three-year group and (b) the five-year group.

Requirements for Admission

A candidate for admission must be a graduate of an accredited high school or other recognized preparatory school, and must present record showing that she has completed satisfactorily the required amount of preparatory study. Preference will be given to students who rank in the upper third of the graduating classes in their preparatory schools.

Candidates are required to present 15 units for entrance: required (7), and elective (8) units.

Required: English (I, II, III, IV), 3 units; algebra to quadratics, 1 unit; plane geometry, 1 unit; history, 1 unit; science, 1 unit. Total, 7 units.

Elective: Astronomy, biology, botany, chemistry, civics, drawing, economics, general science, geology, history, home economics, vocational subjects, languages, mathematics, physical geography, physics, zoology, or any other subject offered in a standard high school or preparatory school for which graduation credit is granted toward college or university entrance. Eight units must be submitted from this group, of which not more than four units can pertain to vocational subjects.

In addition to the above requirements, students must meet certain other definite requirements in regard to health, age, and personal fitness for nursing work.

The preferable age for students registering for the three-year course is 20 to 35 years, although students may be accepted at the age of 18. Women of superior education and culture are given preference, provided they meet the requirements in other particulars. If possible a personal interview with the Director of the School should be arranged on Tuesday or Friday from 11:00 A. M. to 12:00 M.

Blank certificates will be furnished upon application to the Director of the School of Nursing, University of Maryland Hospital, Baltimore, Maryland.

Registration With Maryland State Board of Examiners of Nurses

By regulation of the Maryland State Board of Examiners of Nurses, all students entering schools of nursing in Maryland must, at the beginning of their course, register with the Board in order to be eligible for examination and license on completion of this course.

The fitness of the applicant for the work and the propriety of dismissing or retaining her at the end of her term of probation are left to the decision of the Director of the School. Misconduct, disobedience, insubordination, inefficiency, neglect, and failure to develop those qualities considered essential in a nurse, are causes for dismissal at any time by the President of the University.

The requirements for admission to the five-year program of the School of Nursing are the same as for other colleges. (Special catalogue will be sent upon request.) The three-year program is designed to meet the requirements for the diploma in Nursing, and comprises the work of the first, second, and third hospital years.

Admission to the School

Students for the spring term are admitted in February, and those for the fall term in September or October, and the five year course in September.

Hours of Duty

During the preparatory period the students are engaged in class work for the first four months with no general duty in the hospital, and for the remainder of this period they are sent to the wards on eight-hour duty. During the first, second, and third years the students are on eight-hour day duty and nine-hour night duty, with six hours on holidays and Sundays. The night-duty periods are approximately two months each, with one day at the termination of each term for rest and recreation. The period of night duty is approximately five to six months during the three years.

The first four months of the preparatory period are devoted to theoretical instruction given entirely in the lecture and demonstration rooms of the training school, hospital, and medical school laboratories. The average number of hours per week in formal instruction, divided into lecture and laboratory periods, is 30 hours. This instruction includes courses in anatomy, physiology, cookery and nutrition, dosage and solution, hygiene, bacteriology, chemistry, materia medica, practical nursing, bandaging, ethics, and history of nursing. During the last two months of the probation period the students are placed on duty in the hospital wards for instruction in bedside nursing, and are expected to perform the duties assigned to them by the Director of the School. At the close of the first semester the

students are required to pass satisfactorily both the written and the practical tests; failure to do so will be sufficient reason for terminating the course at this point.

Sickness

A physician is in attendance each day, and when ill all students are cared for gratuitously. The time lost through illness in excess of two weeks, during the three years, must be made up. Should the authorities of the school decide that through the time lost the theoretical work has not been sufficiently covered to permit the student to continue in the current year, it will be necessary for her to continue her work with the next class.

Vacations

Vacations are given between June and September. A period of four weeks is allowed the student at the completion of the first year, and the second year.

Expenses

A fee of \$50.00, payable on entrance, is required from each student. A student activity fee of \$5.00 is to be paid each year at the beginning of the first semester by each student. These will not be returned. A student receives her board, lodging, and a reasonable amount of laundry from the date of entrance. During her period of probation she provides her own uniforms, obtained through the hospital at a nominal cost. After being accepted as a student nurse, she wears the uniform supplied by the hospital. The student is also provided with text-books and shoes. Her personal expenses during the course of training and instruction will depend entirely upon her individual habits and tastes.

GENERAL PLAN OF INSTRUCTION

The course of instruction covers a period of three years, including the preliminary term of six months. The course of instruction is, in general, as follows:

First Year

First Semester

The first semester, or preliminary term, is devoted to theoretical instruction given in the class rooms of the Nursing School and in lecture rooms and laboratories of the Medical School, and to supervised practice in the wards of the hospital. The courses offered are anatomy, physiology, cookery and nutrition, dosage and solutions, chemistry, bacteriology, hygiene, history of nursing, ethics, psychology, principles and practice of nursing, bandaging and surgical supplies.

Excursions are made to the filtration plant, hygienic dairies, markets, and other places of interest.

At the close of the first semester the students are required to pass satisfactorily both written and practical tests. Failure to do this will be sufficient reason to terminate the course at this period.

Second Semester

During this term the students receive theoretical instruction in general surgery, surgical technic, massage, diet therapy, materia medica, advanced nursing procedures and charting, and the case study method. Ward assignments and instruction provide experience in medical, surgical, gynecological and urological nursing, also in the diet school and outpatients department. This experience is under the direction and supervision of the supervisors of the departments.

Second Year

During this period the theoretical instruction includes general medicine, clinical pathology, venereal and skin diseases, x-ray, radium, communicable diseases, pediatrics, obstetrics, gynecology, orthopedics, and diseases of eye, ear, nose, and throat. The hospital assignment here provides instruction and experience on the public wards, on the private floors, and in the operating room.

Third Year

During the third year the theoretical instruction includes psychiatry, public health, professional problems, and survey of the nursing field. The assignments include experience in psychiatric nursing, in public health nursing, in obstetrics and pediatrics.

Attendance at Classes

Attendance is required at all classes for each course for which the student is registered. Absences are excused only in cases of illness or absence from the school.

Examinations

These are both written and oral, and include practical tests. Failure in two or more subjects may necessitate increasing the length of the course.

During the three years of nursing experience in the various departments of the hospital, a monthly record of the student's nursing work is submitted by the nurse in charge. The student's standing is based upon the examinations in the theoretical subjects and these monthly records.

Graduation

The diploma of the school will be awarded to those who have successfully completed the required course of three years, and have maintained the required average in each course and phase of work.

Five-Year Program

In addition to the regular three-year course of training, the University offers a combined Academic and Nursing program leading to the degree of Bachelor of Science and a Diploma in Nursing.

The first two years of the course (or prehospital period), consisting of 68 semester hours, are spent in the College of Arts and Sciences of the University, during which period the student has an introduction to the

general cultural subjects which are considered fundamental in any college training. At least the latter of these two years must be spent in residence at College Park. The last three years are spent in the School of Nursing in Baltimore.

The degree of Bachelor of Science and the Diploma in Nursing are conferred upon students who complete successfully the prescribed combined academic and nursing program, maintaining the required averages in both branches of the course.

Scholarships

One scholarship has been established by the Alumnae of the Training School, which entitles a nurse to a six week's course at Teachers College, Columbia University, New York. This scholarship is awarded at the close of the third year to the student whose work has been of the highest excellence, and who desires to pursue graduate study and special work. There are two scholarships of the value of \$50.00 each: the Edwin and Leander M. Zimmerman prize for practical nursing and for displaying the greatest interest and sympathy for the patients; and the Elizabeth Collins Lee prize, given to the student having the second highest average in scholarship. An alumnae pin is presented by the Women's Auxiliary Board to a student who at the completion of three years shows marked executive ability. A prize of \$25.00 is given by Mrs. John L. Whitehurst to a student who at the completion of three years shows exceptional executive ability.

SCHOOL OF PHARMACY

A. G. DU MEZ, *Dean*

FACULTY COUNCIL

A. G. DU MEZ, Ph.G., B.S., M.S., Ph.D.
WALTER H. HARTUNG, B.A., Ph.D.
E. F. KELLY, Phar.D. Sc.D
CLIFFORD W. CHAPMAN, B.A., M.Sc., Ph.D.
J. CARLTON WOLF, B.Sc., Phar.D.
B. OLIVE COLE, Phar.D., LL.B.
H. E. WICH, Phar.D.
THOMAS C. GRUBB, Ph.D.
A. W. RICHESON, Ph.D.

The School of Pharmacy began its existence as the Maryland College of Pharmacy. The latter was organized in 1841, and operated as an independent institution until 1904, when it amalgamated with the group of professional schools in Baltimore then known as the University of Maryland. It became a department of the present University when the old University of Maryland was merged with the Maryland State College in 1920. With but one short intermission, just prior to 1865, it has continuously exercised its function as a teaching institution.

Location

The School of Pharmacy is located at Lombard and Greene Streets, in close proximity to the Schools of Medicine, Law, and Dentistry.

AIMS

The School of Pharmacy provides systematic instruction in pharmacy, the collateral sciences, and such other subjects as are deemed to be essential in the education of a pharmacist. Its chief aim is to prepare its matriculants for the intelligent practice of dispensing pharmacy, but it also offers the facilities and instruction necessary for the attainment of proficiency in the practice of the other branches of the profession and in pharmaceutical research.

Combined Curriculum in Pharmacy and Medicine

The combined course in Pharmacy and Medicine leading to the degree of Bachelor of Science in Pharmacy was discontinued in 1936.

Students now in the University who have elected the combined course may be granted the degree of Bachelor of Science upon completion of the first three years of the required work of the pharmacy curriculum, together with four semester hours in vertebrate zoology and the first three years of the work in medicine.

Students who hereafter desire to obtain the degree of Bachelor of Science may do so by acquiring in summer school the additional credit in the arts and sciences required for a combined degree (90 semester hours).

To become eligible to take the medical work of the combined course, students must have completed the above work in pharmacy and the arts and sciences with an average grade of B or better. In addition, they must meet the other requirements for admission to the School of Medicine.

Recognition

This school holds membership in the American Association of Colleges of Pharmacy. The object of the Association is to promote the interests of pharmaceutical education; and all institutions holding membership must maintain certain minimum requirements for entrance and graduation. Through the influence of this Association, uniform and higher standards of education have been adopted from time to time; and the fact that several States by law or by Board ruling recognize the standards of the Association is evidence of its influence.

The school is registered in the New York Department of Education, and its diploma is recognized in all States.

REQUIREMENTS FOR ADMISSION*

The requirements for admission meet fully those prescribed by the American Association of Colleges of Pharmacy.

ADMISSION TO FRESHMAN CLASS FROM SECONDARY SCHOOLS

An applicant from a secondary school may be admitted either by certificate, or by examination, or by a combination of the two methods.

Admission by Certificate

An applicant must be a graduate of a secondary school which is approved by the State Board of Education of Maryland or by an accredited agency of at least equal rank, and which requires for graduation not less than 15 units, grouped as follows:

Distribution Of Units Between Required and Elective Subjects: Required subjects 7 units, electives 8 units, total, 15 units.

Required Subjects: English, (I, II, III, IV), 3 units; algebra to quadratics, 1 unit; plane geometry, 1 unit; history, 1 unit; science, 1 unit. Total, 7 units.

Elective Subjects: agriculture, astronomy, biology, botany, chemistry, civics, drawing, economics, general science, geology, history, home economics, vocational subjects, languages, mathematics, physical geography, physics, zoology, or any subject offered in a standard high or preparatory school for which graduation credit is granted toward college or university entrance. Total, 8 units.

*The right is reserved to refuse admission even to applicants with sufficient scholastic credit if their presence in the School would in the judgment of the Faculty Council be detrimental to the best interests of the School.

A unit represents a year's study in any subject in a secondary school, and constitutes approximately one-fourth of a full-year's work. It presupposes a school year of 36 to 40 weeks, recitation periods of from 40 to 60 minutes, and for each study four or five class exercises a week. Double laboratory periods in any science or vocational study are considered as equivalent to one class exercise. Normally, not more than three units are allowed for four years of English. If, however, a fifth course has been taken, an extra unit will be granted.

A graduate of an approved secondary school in Maryland who meets the State certification requirements will be admitted upon presentation of the proper certificate from the principal. A graduate who does not meet fully these requirements may be required to present further evidence of ability to undertake college work. At the discretion of the Director of Admissions, this may include an appropriate examination. Such examination will be given during the first week of each of the months of July, August, and September at Baltimore and other convenient places in the State. Applicants concerned will be notified when and where to report.

An applicant for admission by certificate from a secondary school not located in Maryland must be recommended by the principal, and must have attained the certification-to-college grade of the school. If the school does not have such a quality grade, then the average of the applicant's school grades must be at least ten points or one letter higher than the lowest passing grade of the school.

Admission by Examination

An applicant from a secondary school who is not eligible for admission by certificate may seek entrance through either of two types of examination: (1) he may appeal to the Director of Admissions for permission to report at the University for an examination, the result of which will be used in conjunction with the secondary school record to determine whether the applicant should be admitted, or (2) he may be admitted on presenting evidence of having passed satisfactorily other approved examinations in the subjects required for graduation from an accredited secondary school. Such examinations are offered by the College Entrance Examination Board, 431 West 117th Street, New York City, the Regents of the University of the State of New York, Albany, and the Department of Public Instruction of the State of Pennsylvania, Harrisburg.

Applications for admission must be approved, not only by the Director of Admissions, but also by the Committee on Admissions of the Faculty Council of the School of Pharmacy.

ADMISSION WITH ADVANCED STANDING

A student who presents, in addition to high school requirements, credit for work done in a school of pharmacy holding membership in the American Association of Colleges of Pharmacy will receive credit for the courses which correspond in length and content to those prescribed for the first

three years of the curriculum and be admitted with advanced standing, provided he presents an official transcript of his record and a proper certificate of honorable dismissal.

Credit for general educational subjects will be given to a student presenting evidence of having completed work in an accredited academic institution equal in value to that outlined in this catalogue.

A transferring student in either case must satisfy the preliminary educational requirements outlined under "Requirements for Admission to Freshman Class from Secondary School."

SPECIAL STUDENTS

An applicant who cannot furnish sufficient entrance credit and who does not desire to make up the units in which he is deficient may enter as a special student and pursue all the branches of the curriculum, but will not be eligible for graduation and will not receive a diploma. The Faculty Council reserves the right to decide whether or not the preliminary training of the applicant is sufficient.

REQUIREMENTS FOR GRADUATION

The degree of Bachelor of Science in Pharmacy (B.S. in Pharm.) will be conferred upon a candidate who has met the following requirements:

1. Completion of the full prescribed curriculum. The work of the last year must have been in courses offered in this school, and must have been done in residence at this school.
2. A total semester hour credit of not less than 140, with a grade point count for each of the last two years of not less than twice the total semester hours of credit scheduled for that period.

MATRICULATION AND REGISTRATION

The matriculation ticket must be procured from the office of the School of Pharmacy, and must be taken out before one enters classes. After matriculation, all students are required to register at the office of the Director of Admissions. The last date of matriculation is Sept. 23, 1939.

Expenses

<i>Matriculation</i>	<i>Tuition</i>		<i>Laboratory</i>	<i>Graduation</i>
	<i>Resident</i>	<i>Non-Resident</i>	<i>and Breakage</i>	
\$10.00 (only once)	\$220.00	\$270.00	\$60.00 (yearly)	\$15.00

Tuition for the first semester and laboratory and breakage fee shall be paid to the Comptroller at the time of registration; and tuition for the second semester and graduation fee (the latter returned in case of failure) on or before Jan. 27, 1940.

A bulletin giving details of the course in Pharmacy may be obtained by addressing the School of Pharmacy, University of Maryland, Baltimore, Maryland.

STATE BOARD OF AGRICULTURE

816 Fidelity Building, Baltimore, Maryland.

H. C. Byrd.....Executive Officer

F. K. Haszard.....Executive Secretary

The law provides that the personnel of the State Board of Agriculture shall be the same as the Board of Regents of the University of Maryland. The President of the University is the Executive Officer of the State Board of Agriculture.

General Powers of Board: The general powers of the Board as stated in Article 7 of the Laws of 1916, Chapter 391, are as follows:

"The State Board of Agriculture shall investigate the conditions surrounding the breeding, raising, and marketing of live stock and the products thereof, and contagious and infectious diseases affecting the same; the raising, distribution, and sale of farm, orchard, forest, and nursery products, generally, and plant diseases and injurious insects affecting the same; the preparation, manufacture, quality analysis, inspection, control, and distribution of animal and vegetable products, animal feeds, seeds, fertilizers, agricultural lime, agricultural and horticultural chemicals, and biological products; and shall secure information and statistics in relation thereto and publish such information, statistics, and the results of such investigations at such times and in such manner as to it shall seem best adapted to the efficient dissemination thereof; and except where such powers and duties are by law conferred or laid upon other boards, commissions, or officials, the State Board of Agriculture shall have general supervision, direction, and control of the herein recited matters, and generally of all matters in any way affecting or relating to the fostering, protection, and development of the agricultural interests of the State, including the encouragement of desirable immigration thereto, with power and authority to issue rules and regulations in respect thereof not in conflict with the Constitution and Laws of the State or the United States, which shall have the force and effect of law, and all violations of which shall be punished as misdemeanors are punished at common law; and where such powers and duties are by law conferred or laid on other governmental agencies may co-operate in the execution and performance thereof, and when so co-operating each shall be vested with such authority as is now or may hereafter by law be conferred on the other. The powers and duties herein recited shall be in addition to and not in limitation of any power and duties which now are or hereafter may be conferred or laid upon said board."

Under the above authority and by special legislation, all regulatory work is conducted under the general authority of the State Board. This includes the following services:

LIVESTOCK SANITARY SERVICE

816 Fidelity Building, Baltimore, Maryland.

Mark Welsh.....State Veterinarian

This Service has charge of regulatory work in connection with the control of animal and poultry diseases, such as bovine tuberculosis, Bang's Disease, hog cholera, encephalomyelitis, rabies, anthrax, blackleg, and scabies in animals; and pullorum disease and blackhead in poultry. The Service co-operates in these activities with the U. S. Department of Agriculture.

Well equipped laboratories for research, diagnostic work, and the examination of specimens, are maintained at College Park, and branch laboratories for the convenience of persons residing in other sections of the State are maintained at Lombard and Greene Streets, Baltimore, Salisbury and Centreville.

STATE HORTICULTURAL DEPARTMENT

College Park, Maryland.

T. B. Symons.....Director of Extension Service
E. N. Cory.....State Entomologist
C. E. Temple.....State Pathologist

The State Horticultural Law was enacted in 1898. It provides for the inspection of all nurseries and the suppression of injurious insects and diseases affecting plants of all kinds. The work of the department is conducted in close association with the departments of Entomology and Pathology of the University. The regulatory work is conducted under the authority of the law creating the department as well as the State Board of Agriculture. For administrative purposes, the department is placed under the Extension Service of the University on account of the close association of the work.

INSPECTION AND REGULATORY SERVICE

(Feeds, Fertilizer, and Lime)

L. B. Broughton, Ph.D.....State Chemist
L. E. Bopst, B.S.....Associate State Chemist
E. C. Donaldson, M.S.....Chief Inspector
W. C. Supplee, Ph.D.....Biochemist
W. J. Footen.....Inspector
E. M. Zentz.....Inspector
H. R. Walls.....Asst. Chemist and Micro-Analyst
L. H. Van Wormer.....Assistant Chemist
R. E. Baumgardner, B.S.....Assistant Chemist
Albert Heagy, B.S.....Assistant Chemist
Robert G. Fuerst.....Laboratory Helper

The Feed, Fertilizer, and Lime Inspection Service, a branch of the Department of Chemistry, is charged with the enforcement of the State Feed Law, the State Fertilizer Act, and the Agricultural Lime Statute. Briefly this involves the registration and sampling of all products sold, the chemical and physical examination of samples collected, the publication of results obtained, and the prosecution of violators of the three statutes.

The people of Maryland last year spent at least fifteen million dollars for their feed, fertilizer, and lime supplies. The protection of our users of these products to the extent of assuring them value received for this tremendous amount of money spent is of very great importance. This protection benefits not only the farm owner who must buy fertilizer for his fields and feed for his livestock, but also the city home owner who must fertilize his lawn and flowers.

SEED INSPECTION SERVICE

College Park, Maryland.

F. S. Holmes.....Seed Inspector

The Seed Inspection Service is placed by law under the general supervision of the Agricultural Experiment Station. This service takes samples of seed offered for sale, and tests them for quality and germination.

STATE DEPARTMENT OF FORESTRY

1411 Fidelity Building, Baltimore, Maryland.

F. W. Besley.....State Forester

The Department of Forestry was created and organized to protect and develop the valuable forest resources of the State; to carry on a campaign of education; and to instruct counties, towns, corporations, and individuals as to the advantages and necessity of protecting from fire and other enemies the timber lands of the State. All correspondence and inquiries should be addressed to The State Forester, 1411 Fidelity Building, Baltimore.

Studies have been made of the timber resources of each of the twenty-three counties; and the statistics and information collected are published for free distribution, accompanied by a valuable timber map. The Department also administers six state forests, comprising about 6,000 acres. The Roadside Tree Law directs the Department of Forestry to care for trees growing within the right-of-way of any public highway in the State. A State Forest Nursery, established in 1914, is located at College Park.

STATE WEATHER SERVICE

Edward B. Mathews.....Director
 Johns Hopkins University, Baltimore, Maryland.
 John R. Weeks.....Meteorologist
 U. S. Custom House, Baltimore, Maryland.

The State Weather Service compiles local statistics regarding climatic conditions and disseminates information regarding the climatology of Maryland under the Regents of the University of Maryland through the State Geologist as successor to the Maryland State Weather Service Commission. The State Geologist is ex-officio Director, performing all the functions of former officers with the exception of Meteorologist, who is commissioned by the Governor and serves as liaison officer with the United States Weather Bureau. All activities except clerical are performed voluntarily.

MARYLAND GEOLOGICAL SURVEY

Edward B. Mathews.....State Geologist
 Johns Hopkins University, Baltimore, Maryland.

The Geological and Economic Survey Commission is authorized under the general jurisdiction of the Board of Regents of the University of Maryland to conduct the work of this department. The State Geological and Economic Survey is authorized to make the following:

Topographic surveys showing the relief of the land, streams, roads, railways, houses, etc.

Geological surveys showing the distribution of the geological formations and mineral deposits of the State.

Agricultural soil surveys showing the areal extent and character of the different soils.

Hydrographic surveys to determine the available waters of the State for potable and industrial uses.

Magnetic surveys to determine the variation of the needle for land surveys.

A permanent exhibit of the mineral wealth of the State in the old Hall of Delegates at the State House, to which new materials are constantly added to keep the collection up-to-date.

SECTION III

Description Of Courses

The courses of instruction described in this section are offered at College Park. Those offered in the Baltimore Schools are described in the separate announcements issued by the several schools.

For the convenience of students in making out schedules of studies, the subjects in the following Description of Courses are arranged alphabetically:

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Courses for undergraduates are designated by the numbers 1-99; courses for advanced undergraduates and graduates, 100-199; courses for graduates, 200-299.

The letter following the number of the course indicates the semester in which the course is offered: thus, 1 f is offered the first semester; 1 s, the second semester; 1 y, the year; 1 f and s indicates that the course is repeated in the second semester; 1 f or s that the course may be given in either the first or the second semester. A capital S after a course number indicates that the course is offered in the summer session only.

The number of hours' credit is shown by the arabic numeral in parentheses after the title of the course.

A separate schedule of courses is issued each semester, giving the hours, places of meeting, and other information required by the student in making out his program. Students will obtain these schedules when they register.

Students are advised to consult the statements of the colleges and schools in Section II when making out their programs of studies; also Regulation of Studies, Section I.

AGRICULTURAL ECONOMICS AND FARM MANAGEMENT*

PROFESSOR DeVULT; LECTURER BAKER; ASSOCIATE PROFESSOR WALKER;
ASSISTANT PROFESSORS HAMILTON and CODDINGTON.

A. E. 1 f. Agricultural Industry and Resources (3)—Two lectures; one laboratory.

A descriptive course dealing with agriculture as an industry and its relation to climate, physiography, soils, population centers and movements, commercial development, transportation, etc.; the existing agricultural resources of the world and their potentialities, commercial importance, and geographical distribution; the chief sources of consumption; the leading

*See also related courses in Economics and in Business Administration.

trade routes and markets for agricultural products. The history of American agriculture is briefly reviewed. Emphasis is upon the chief crop and livestock products of the United States.

A. E. 2 s. Farm Organization (3)—Three lectures.

A study of farm organization consisting of an introduction to the complex problems of the agricultural industry as these problems affect the life and welfare of the individual farmer. More specifically, the course includes the choice of agriculture as a vocation; adaptation of farms to particular enterprises; types of farming and factors influencing the same; farm returns; the use of labor, machinery, and land in production; combination of crop and livestock enterprises as they affect the farmer's income; and a study of successful and unsuccessful Maryland farms.

For Advanced Undergraduates and Graduates

A. E. 100 f. Farm Economics (3)—Three lectures. Prerequisite, Econ. 51y, or Econ. 57.

A general course in agricultural economics, with special reference to population trend, agricultural wealth, land tenure, farm labor, agricultural credit, the tariff, price movements, and marketing. (DeVault.)

A. E. 102 s. Marketing of Farm Products (3)—Three lectures. Prerequisite, Econ. 51y, or 57.

A complete analysis of the present system of transporting, storing, and distributing farm products, and a basis for intelligent direction of effort in increasing the efficiency of marketing methods. (DeVault.)

A. E. 103 f. Cooperation in Agriculture (3)—Three lectures.

Historical and comparative development of farmers' cooperative organizations with some reference to farmer movements; reasons for failure and essentials to success; commodity developments; the Federal Farm Board; banks for cooperatives; present trends. (Ives.)

A. E. 104 s. Farm Finance (3)—Three lectures.

Agricultural Credit requirements; development and volume of business of institutions financing agriculture; financing specific farm organizations and industries. *Farm insurance*—fire, crop, livestock, and life insurance with special reference to mutual development—how provided, benefits, and needed extension. (Coddington.)

A. E. 105 s. Food Products Inspection (2)—One lecture; one laboratory.

This course, arranged by the Department of Agricultural Economics in cooperation with the State Department of Markets and the United States Department of Agriculture, is designed to give students primary instruction in the grading, standardizing, and inspection of fruits and vegetables, dairy products, poultry products, meats, and other food products. Theoretical instruction covering the fundamental principles will be given in the form of lectures, while the demonstrational and practical work will be conducted through laboratories and field trips to Washington, D. C., and Baltimore. (Staff.)

A. E. 106 s. Prices of Farm Products (3)—Two lectures; one laboratory.
A general course in prices, price relationships, and price analysis, with emphasis on prices of agricultural products. (Ives.)

A. E. 107 s. Analysis of the Farm Business (3)—One lecture; two laboratories.

A concise practical course in the keeping, summarizing, and analyzing of farm accounts. (Hamilton.)

A. E. 108 f. Farm Management (3)—Three lectures.

A study of the organization and operation of Maryland farms from the standpoint of efficiency and profits. Students will be expected to make an analysis of the actual farm business and practices of different types of farms located in various parts of the State, and to make specific recommendations as to how these farms may be organized and operated as successful businesses. (Hamilton.)

A. E. 109 y. Research Problems (1-3).

With the permission of the instructor, students will work on any research problems in agricultural economics which they may choose, or a special list of subjects will be made up from which the students may select their research problems. There will be occasional class meetings for the purpose of making reports on progress of work, methods of approach, etc. (DeVault.)

A. E. 111 f. Land Economics (3)—Three lectures.

Concepts of land economy are discussed, as well as conditions and tendencies influencing land requirements in relation to land resources. A study of major land problems and land policies including erosion and its control; farm tenancy; tax delinquency and tax reverted lands; land use planning and production control; public policies for facilitating land use adjustments; and directional measures for discouraging undesirable land uses. (Coddington.)

For Graduates

A. E. 201 y. Special Problems in Farm Economics (3).

An advanced course dealing more extensively with some of the economic problems affecting the farmer; such as land problems, agricultural finance, farm wealth, agricultural prices, transportation, and special problems in marketing and cooperation. (Staff.)

A. E. 202 y. Seminar (1-2).

This course will consist of special reports by students on current economic subjects, and a discussion and criticism of the same by the members of the class and the instructor. (DeVault.)

A. E. 203 y. Research (8).

Students will be assigned research in agricultural economics under the supervision of the instructor. The work will consist of original investigation in problems of agricultural economics, and the results will be presented in the form of theses. (DeVault.)

A. E. 210 s. Taxation in Relation to Agriculture (2)—Two lectures.

Principles and practices of taxation in their relation to agriculture, with special reference to the trends of tax levies, taxation in relation to land utilization, taxation in relation to ability to pay and benefits received; a comparison of the following taxes as they affect agriculture: general property tax, income tax, sales tax, gasoline and motor vehicle license taxes, inheritance tax, and special commodity taxes; possibilities of farm tax reduction through greater efficiency and economies in local government. (Walker and DeVault.)

A. E. 211 f. Agricultural Taxation in Theory and Practice (3)—Two lectures; one laboratory period a week.

Ideals in taxation; economic effects of taxation upon the welfare of society; theory of taxation: the general property tax, business and license taxes, the income tax, the sales tax, special commodity taxes, inheritance and estate taxes; recent shifts in taxing methods and recent tax reforms; conflicts and duplication in taxation among governmental units; practical and current problems in taxation. (Walker and DeVault.)

A. E. 212 f, 213 s. Land Utilization and Agricultural Production (3, 2)—Two double lecture periods a week.

A presentation by regions of the basic physical conditions of the economic and social forces that have influenced agricultural settlement, and of the resultant utilization of the land and production of farm products; followed by a consideration of regional trends and interregional shifts in land utilization and agricultural production, and the outlook for further changes in each region. (Baker.)

A. E. 214 s. Consumption of Farm Products and Standards of Living (3)—Two double lecture periods a week.

A presentation of the trends in population and migration for the Nation and by States, of trends in exports of farm products and their regional significance, of trends in diet and in per capita consumption of non-food products; followed by a consideration of the factors that appear likely to influence these trends in the future, and of the outlook for commercial as contrasted with a more self-sufficing agriculture. (Baker.)

A. E. 215 s. Advanced Agricultural Cooperation (2)—Two lectures.

An appraisal of agricultural cooperation as a means of improving the financial status of farmers. More specifically, the course includes a critical analysis and appraisal of specific types and classes of cooperatives. (Ives.)

AGRICULTURAL EDUCATION AND RURAL LIFE

PROFESSORS COTTERMAN, CARPENTER, MR. POFFENBERGER.

For Advanced Undergraduates and Graduates

R. Ed. 101 f, 102 s. Farm Practicums and Demonstrations (1, 1)—One laboratory. Cannot be used for graduate credit.

This course is designed to assist the student in relating the learning acquired in the several departments of the University with the problems of doing and demonstrating which he faces in the field and in the classroom as a teacher. It aims particularly to check his training in the essential practicums and demonstrations in vocational agriculture, and to introduce him to the conditions under which such activities must be carried on in the patronage areas and laboratories of vocational departments. Laboratory practice in deficiencies required. (Poffenberger.)

R. Ed. 107 s. Observation and the Analysis of Teaching for Agricultural Students (3)—Two lectures; one laboratory. Prerequisite, Psych. 10. Open to juniors and seniors; required of seniors in Rural Life and Agricultural Education.

This course deals with an analysis of pupil learning in class groups. (Cotterman.)

R. Ed. 109 f. Teaching Secondary Vocational Agriculture (3)—Three lectures. Prerequisites, R. Ed. 107 s; A. H. 2; D. H. 1; P. H. 1; Soils 1; Agron. 1, 2; Hort. 1, 11; Agr. Engr. 101, 104; A. E. 2, 102; A. E. 108 f.

A comprehensive course in the work of high school departments of vocational agriculture. It emphasizes particularly placement, supervised farming programs, the organization and administration of Future Farmer work, and objectives and methods in all-day, continuation, and adult instruction. (Cotterman.)

R. Ed. 110 s. Rural Life and Education (3)—Three lectures.

An intensive study of the educational agencies at work in rural communities, stressing an analysis of school patronage areas, the possibilities of normal life in rural areas, early beginnings in rural education, and the conditioning effects of economic differences. The course is designed especially for persons who expect to be called upon to assist in shaping educational and other community programs for rural people. (Cotterman.)

R. Ed. 112 s. Departmental Organization and Administration (1)—Two lectures. Prerequisites, R. Ed. 107 s, 109 f.

The work of this course is based upon the construction and analysis of administrative programs for high school departments of vocational agriculture. As a project, each student prepares and analyzes in detail an administrative program for a specific school. Investigations and reports. (Cotterman.)

R. Ed. 114 s. Teaching Farm Mechanics in Secondary Schools (1)—One lecture.

Objectives in the teaching of farm shop and farm mechanics; contemporary developments; determination of projects; shop management; shop programs; methods of teaching; equipment; materials of construction; special projects. (Carpenter.)

R. Ed. 120 f and s. Practice Teaching (2)—Prerequisites, R. Ed. 107 s, 109 f.

Under the direction of a critic teacher the student in this course is required to analyze and prepare special units of subject matter, plan lessons, and teach in cooperation with the critic teacher, exclusive of observation, not less than twenty periods of vocational agriculture. (Cotterman.)

For Graduates

R. Ed. 201 f, 202 s. Rural Life and Education (3)—Prerequisite, R. Ed. 110 s, or equivalent.

A sociological approach to rural education as a movement for a good life in rural communities. It embraces a study of the organization, administration, and supervision of the several agencies of public education as component parts of this movement and as forms of social economy and human development. Discussions, assigned readings, and major term papers in the field of the student's special interest. (Cotterman.)

R. Ed. 207 f, 208 s. Problems in Vocational Agriculture, Related Science, and Shop (2, 2).

In this course special emphasis is placed upon the current problems facing teachers of vocational agriculture. It is designed especially for persons who have had several years of teaching experience in this field. The three phases of the vocational teacher's program—all day, part-time, and adult work—receive attention. Discussions, surveys, investigations, and reports. (Cotterman.)

R. Ed. 250 y. Seminar in Rural Education (2-4).

Problems in the organization, administration, and supervision of the several agencies of rural education. Investigations, papers, and reports. (Cotterman.)

R. Ed. 251 y. Research (2-4)—Credit hours according to work done. Students must be specially qualified by previous work to pursue with profit the research to be undertaken. (Cotterman.)

AGRICULTURAL ENGINEERING

PROFESSOR CARPENTER; ASSOCIATE PROFESSOR KREWATCH; ASSISTANT PROFESSOR BURKHARDT.

Agr. Engr. 101 f. Farm Machinery (3)—Two lectures; one laboratory.

A study of the design and adjustments of modern horse- and tractor-drawn machinery. Laboratory work consists of detailed study of actual machines, their calibration, adjustment, and repair.

Agr. Engr. 102 s. Gas Engines, Tractors, and Automobiles (3)—Two lectures; one laboratory.

A study of the design, operation, and repair of the various types of internal combustion engines used in farm practice.

Agr. Engr. 104 f. Farm Mechanics (1)—One laboratory.

This course consists of laboratory exercises in practical farm shop and farm equipment repair and construction projects. It is offered primarily for prospective teachers of vocational agriculture.

Agr. Engr. 105 f. Farm Buildings (2)—Two lectures.

A study of all types of farm structures; also of farm heating, lighting, water supply, and sanitation systems.

Agr. Engr. 107 s. Farm Drainage (2)—One lecture; one laboratory.

A study of farm drainage systems, including theory of tile under-drainage, the depth and spacing of laterals, calculation of grades, and methods of construction. A smaller amount of time will be spent upon drainage by open ditches, and the laws relating thereto.

AGRONOMY

Division of Crops

PROFESSORS METZGER, KEMP; ASSOCIATE PROFESSOR EPPLEY;
MR. A. W. WOODS.

Agron. 1 f. Cereal Crop Production (3)—Two lectures; one laboratory. History, distribution, adaptation, culture, improvement, and uses of cereal, forage, pasture, cover, and green manure crops.

Agron. 2 s. Forage Crop Production (3)—Two lectures; one laboratory. Continuation of Agron. 1 f.

For Advanced Undergraduates and Graduates

Agron. 102 f. Technology of Crop Quality (2 or 3)—Students, other than those specializing in agronomy, may register for either portion of the course. Part one (*Grading Farm Crops*)—one lecture; one laboratory. The market classifications and grades as recommended by the United States Bureau of Markets, and practice in determining grades. Part two (*Grain, Hay, and Seed Judging and Identification*)—one laboratory. (Eppley.)

Agron. 103 f. Crop Breeding (2)—One lecture; one laboratory. Prerequisite, Gen. 101 f.

The principles of breeding as applied to field crops, and methods used in crop improvement. (Kemp.)

Agron. 104 f and s. Selected Crop Studies (1-4)—Credit according to work done. This course is intended primarily to give an opportunity for advanced study of crop problems or crops of special interest to students. (Staff.)

Agron. 121 s. Methods of Crop and Soil Investigations (2)—Two lectures.

A consideration of agricultural investigation methods at the various experiment stations, and the standardization of such methods. (Metzger.)

For Graduates

Agron. 201 y. Crop Breeding (4-10)—Credits determined by work accomplished.

The content of this course is similar to that of Agron. 103 f, but will be adapted more to graduate students, and more of a range will be allowed in choice of material to suit special cases. (Kemp.)

Agron. 203 y. Seminar (2)—One report period each week.

The seminar is devoted largely to reports by students on current scientific publications dealing with problems in crops and soils.

Agron. 209 y. Research (6-8)—Credit determined by work accomplished.

With the approval of the head of the department, the student will be allowed to work on any problem in agronomy, or he will be given a list of suggested problems from which he may make a selection. (Staff.)

Division of Soils

PROFESSOR THOMAS, MR. MADIGAN, DR. BODILY.

Soils 1 f and s. Soils and Fertilizers (3-5)—Three lectures; two two-hour laboratory periods. Prerequisites, Geol. 1 f, Chem. 1 y, Chem. 12 y.

A study of the principles involved in soil formation and classification. The influence of physical, chemical, and biological activities on plant growth, together with the use of fertilizers in the maintenance of soil fertility. Lectures may be taken without the laboratory.

For Advanced Undergraduates and Graduates

Soils 102 s. Soil Management (3)—Two lectures; one laboratory. Prerequisite, Soils 1.

A study of the soil fertility systems of the United States, with special emphasis on the interrelation of total to available plant food, the balance of nutrients in the soil with reference to various cropping systems, and the economic and national aspect of permanent soil improvement. The practical work includes laboratory and greenhouse practice in soil improvement.

Soils 103 f. Soil Geography (3)—Two lectures; one discussion period.

A study of the genealogy of soils, the principal soil regions of North America, and the classification of soils. Field trips will be made to emphasize certain important phases of the subject.

Soils 112 s. Soil Conservation (3)—Three lectures.

A study of the factors relating to soil preservation, including the influence of cropping and soil management practices, fertilizer treatments, constructive and destructive agencies of man and nature on conservation, history of research in soil erosion, and field trips to soil demonstration areas.

For Graduates

Soils 201 y. Special Problems and Research (10-12).

Original investigation of problems in soils and fertilizers. (Staff.)

Soils 202 y. Soil Technology (7-5 f, 2 s)—Three lectures; two laboratories first semester; two lectures second semester. Prerequisites, Geol. 1, Soils 1, and Chem. 1.

In the first semester, chemical and physico-chemical study of soil problems as encountered in field, greenhouse, and laboratory. In the second semester, physical and plant nutritional problems related to the soil.

(Thomas.)

Soils 204 s. Soil Micro-Biology (3)—Two lectures; one laboratory. Prerequisite, Bact. 1.

A study of the micro-organisms of the soil in relation to fertility. It includes the study of the bacteria of the soil concerned in the decomposition of organic matter, nitrogen fixation, nitrification, and sulphur oxidation and reduction, and deals also with such organisms as fungi, algae, and protozoa.

The course includes a critical study of the methods used by experiment stations in soil investigational work.

ANIMAL AND DAIRY HUSBANDRY

PROFESSORS IKELER, MEADE, TURK, LEINBACH, ENGLAND; ASSOCIATE PROFESSOR BERRY; ASSISTANT PROFESSOR HUGHES; MR. OUTHOUSE.

Animal Husbandry

A. H. 2 s. General Animal Husbandry (2)—Two laboratories.

Types and market classes of beef cattle, sheep, hogs, horses. An outline of the types and market classes of cattle, hogs, sheep, and horses, supplemented by trips to large typical central livestock markets. Emphasis is placed on the selection and judging of the various classes of livestock. A review of the entire commercial livestock and meat industry.

For Advanced Undergraduates and Graduates

A. H. 100 f. Breeds of Horses and Beef Cattle (2)—One lecture; one laboratory. Prerequisite, A. H. 2 s.

A complete review of the types, characteristics, and general history of the various breeds of draft horses and beef cattle. This course is designed to familiarize students with the general use and adaptability of the breeds of draft horses and beef cattle that are important in America. Laboratory consists of comparing specimens of the various breeds, with emphasis on breed characteristics of each. (Not given in 1939-40.) (Leinbach.)

A. H. 101 s. Breeds of Sheep and Swine (2)—One lecture; one laboratory. Prerequisite, A. H. 2 s.

A complete review and history of the breeds of sheep and hogs which are important in our livestock industry. Laboratory work consists of the study and comparison of the breed characteristics of each. (Leinbach.)

A. H. 102 f. Feeds and Feeding (3)—Two lectures; one laboratory. Junior year. Prerequisites, Chem. 1 y and Chem. 12 Ay.

Elements of nutrition, source, characteristics, and adaptability of the various feeds to the several classes of livestock. Feeding standards, the calculation and compounding of rations. (Ikeler, Meade.)

A. H. 103 s. Principles of Breeding (3)—Two lectures; one laboratory. Senior year. Prerequisite, Gen. 101 f.

This course covers the practical aspects of animal breeding, including heredity, variation, selection, development, systems of breeding, and pedigree work. (Meade.)

A. H. 105 s. Livestock Management (2)—Two laboratories. Prerequisite, A. H. 2 s.

A thorough livestock management course designed to familiarize students with the practical handling and management of livestock. Students are given actual practice and training in the maintaining, feeding, fitting, and preparation of animals for show and work purposes. (Outhouse.)

A. H. 106 f. Meat and Meat Products (1)—One laboratory. Prerequisite, A. H. 2 s.

A course designed to give the student information on the processing and handling of our meat supply. Included is a study of the physical and structural differences which affect the value of meat and its products. Numerous trips will be made to packing houses and meat distributing centers during the course. (Leinbach, Carroll.)

A. H. 107 s. Livestock Judging (2)—Two laboratories. Prerequisite, A. H. 2 s.

A laboratory course in the judging of hogs, sheep, beef cattle, and draft horses. Laboratory specimens are drawn from the college herds and flocks, with occasional supplemental trips to outstanding State herds. (Outhouse, Leinbach.)

A. H. 108 f. Advanced Livestock Judging (2)—Two laboratories. Prerequisite, A. H. 107 s.

A course for advanced training in the selection and judging of animals of the different breeds and market classes of sheep, hogs, beef cattle, and draft horses. The University of Maryland livestock judging team is selected from the best student judges enrolled in this course. A wide variety of laboratory animals are used. Practice judging includes occasional judging trips among some of the outstanding State herds. (Outhouse, Leinbach.)

A. H. 109 f. Beef Cattle and Horse Production (3)—Three lectures. Prerequisite, A. H. 105 s.

A full review of the principles underlying the practical and economical production of beef cattle and draft horses, particularly treating such angles

as the selection of breeding animals, the raising, feeding, and preparation of beef cattle and draft horses for breeding, market, and work purposes.

(Leinbach, Outhouse.)

A. H. 110 s. Sheep and Swine Production (3)—Three lectures. Prerequisite, A. H. 105 s.

A course for those interested in the principles and practices underlying economical and efficient sheep and swine production for both commercial and breeding purposes. Full treatment of the topics of feeding, managing, producing, and marketing sheep and hogs.

(Outhouse, Leinbach.)

A. H. 111 f. Livestock Markets and Marketing (2)—Two lectures. Prerequisite, A. H. 2 s.

A comprehensive study of the marketing of sheep, beef cattle, hogs and draft horses, and practices found in the American livestock market system together with the facilities available for the marketing and merchandising of all kinds of livestock and meat products.

(Leinbach, Ikeler.)

A. H. 112 s. Geography of Livestock Production (2)—Two lectures.

A course designed to familiarize students with livestock management, production, and marketing practices in other parts of the world. Consideration is given to the bearing of foreign livestock and meat industries on this country's production, including an insight into our foreign markets. (Not given in 1939-40.)

(Leinbach, Outhouse.)

A. H. 113 f. Animal Nutrition (3)—Three lectures. Prerequisites, Chem. 12 Ay and A. H. 102 f.

Processes of digestion, absorption, and metabolism of nutrients, nutritional balances, nature of nutritional requirements for growth, production, and reproduction.

(Meade.)

Light Horse Section

With the cooperation of Dr. A. L. Brueckner of the Veterinary Science Section of the University, and Mr. Humphrey Finney of the Maryland Horse Breeders' Association and Editor of *The Maryland Horse*, two courses are scheduled this year in light horse production.

A. H. 115 f. Light Horse Production (1)—One lecture. Prerequisite, A. H. 2 s.

A study of the light horse breeds with emphasis on the types and usefulness of each. A full discussion of principles of selection and breeding of light horses is included in this course.

(Brueckner, Finney, Ikeler.)

A. H. 116 s. Advanced Light Horse Production (1)—One lecture. Prerequisite, A. H. 115 f.

This course is a continuation of A. H. 115 f. Included is a study of the organization of the light horse farm, proper methods of feeding and training; control of disease; treatment and care of injuries; sale of surplus stock.

(Brueckner, Finney, Ikeler.)

For Graduates

A. H. 201 f or s. Special Problems in Animal Husbandry (2-3)—Credit given in proportion to amount of work completed.

Problems which relate specifically to the character of work the student is pursuing will be assigned.

(Staff.)

A. H. 202 f or s. Seminar (1).

Students are required to prepare papers based upon current scientific publications relating to animal husbandry or upon their research work for presentation before and discussion by the class.

(Staff.)

A. H. 203 y. Research. Credit to be determined by the amount and character of work done.

With the approval of the head of the department, students will be required to pursue original research in some phase of animal husbandry, carry the same to completion, and report the results in the form of a thesis.

(Meade and Staff.)

A. H. 204 s. Advanced Breeding (2)—Two lectures. Prerequisites, Gen. 101 f and A. H. 103 s.

This course deals with the more technical phases of heredity, variation recombination, and mutation; selection and selection indices; breeding systems; specific inheritance in farm animals, and with biometry as applied to animal breeding.

(Meade.)

DAIRY HUSBANDRY

Dairy Production

D. H. 1 f. Fundamentals of Dairying (3)—Two lectures; one laboratory. Sophomore year. Prerequisite, Chem. 1 y.

This course includes a general survey of the dairy manufacturing industry; the physical and chemical properties of milk; the production and distribution of dairy products; the Babcock Test and other quantitative tests; simple qualitative tests for adulterants and preservatives; ice cream, butter, cheese, and condensed products, and judging and scoring market milk. Laboratory fee \$2.00.

(England.)

D. H. 2 s. Fundamentals of Dairying (3)—Two lectures; one laboratory. Sophomore year. Prerequisite, D. H. 1 f.

This is a general course covering very briefly the origin, development, and characteristics of the dairy breeds of cattle; feeding, breeding, and management of the dairy herd; calf raising, dairy farm buildings and equipment; bull associations and dairy herd improvement associations; the production of high-quality milk; elementary judging practice; and the fitting and showing of dairy cattle. Students in this course will be required to fit and show an animal in the annual students' fitting and showing contest.

(Turk.)

For Advanced Undergraduates and Graduates

D. H. 101 f. Dairy Cattle Feeding and Herd Management (3)—Two lectures; one laboratory. Junior or senior year. Prerequisites, D. H. 1 f, D. H. 2 s, and A. H. 102 f.

A comprehensive course in dairy cattle feeding and herd management designed for advanced students in dairy husbandry. It covers the efficient feeding of the dairy herd, including milking cows, dairy heifers, calves, and dairy bulls; common diseases of dairy cattle and their treatment; dairy farm sanitation; problems of herd management; dairy barns and equipment; and the factors essential for success in the dairy farm business. (Turk.)

D. H. 103 s. Dairy Cattle Judging (2)—Two laboratories. Junior year. Prerequisite, D. H. 2 s.

This course is designed to give instruction in the comparative judging of dairy cattle. Trips to various farms for judging practice will be made. Such dairy cattle judging teams as may be chosen to represent the University will be selected from among those taking this course. (Turk.)

D. H. 104 f. Advanced Dairy Cattle Judging (1)—One laboratory. Senior year. Prerequisite, D. H. 103 s.

Advanced work in judging dairy cattle. Credit only to students who do satisfactory work in competition for the dairy cattle judging team. (Turk.)

D. H. 105 s. Dairy Breeds and Breeding (2)—One lecture; one laboratory. Prerequisite, D. H. 2 s, Gen. 101 f, A. H. 103 s.

A study of the historical background; characteristics; prominent blood lines; noted families and individuals of the major dairy breeds. A survey of breeding systems; genetic and environmental factors as applied to dairy cattle. The use of the pedigree, various indices, herd and production records in selection and formulating breeding programs. (Berry.)

D. H. 106 f, 107 s. Dairy Cattle Management and Barn Experience (3, 3)—Junior or senior year. Prerequisites, D. H. 2 s, 101 f, and 102 s.

Each student will be assigned special work under direction of an instructor at the University of Maryland Dairy barn, and will continue such assignment until he is proficient. Special emphasis will be given to all management problems, including the fitting and showing of dairy animals. (Turk.)

D. H. 108 f. History and Geography of Dairying (2)—Two lectures. Junior year.

A study of the history and development of dairying in the various countries of the world, with special reference to the importance of the industry, to breeds of dairy cattle and their development, to dairy products manufactured, and to the importation and exportation of dairy products. (Berry.)

D. H. 119 f, 120 s. Dairy Literature (1, 1)—One lecture. Junior and senior year. Prerequisite, D. H. 1 f and D. H. 2 s.

Presentation and discussion of current literature in dairying.

(England, Berry.)

Dairy Manufacturing

For Advanced Undergraduates and Graduates

D. H. 109 f. Cheese Making (3)—One lecture; two laboratories. Junior year. Prerequisites, D. H. 1 f and Bact. 1.

The principles and practice of making casein and cheese, including a study of the physical, chemical, and biological factors involved. Laboratory practice will include visits to commercial factories. Laboratory fee, \$1.00. (England.)

D. H. 110 f. Butter Making (2)—One lecture; one laboratory. Junior year. Prerequisites, D. H. 1 f and Bact. 1.

The principles and practice of making butter, including a study of the physical, chemical, and biological factors involved. Laboratory practice will include visits to commercial factories. Laboratory fee, \$2.00. (England.)

D. H. 111 s. Concentrated Milks (2)—One lecture; one laboratory. Junior year. Prerequisites, D. H. 1 f and Bact. 1.

The principles and practice of making condensed milk, evaporated milk, and milk powder, including a study of the physical, chemical, and biological factors involved. Laboratory practice will include visits to commercial factories. Laboratory fee, \$1.00. (England.)

D. H. 112 s. Ice Cream Making (3)—One lecture; two laboratories. Junior year. Prerequisites, D. H. 1 f and Bact. 1.

The principles and practice of making ice cream, sherbets, and ices, including a study of the physical, chemical, and biological factors involved. Laboratory practice will include visits to commercial factories. Laboratory fee, \$2.00. (England.)

D. H. 113 f. Market Milk (5)—Three lectures; two laboratories. Senior year. Prerequisites, D. H. 1 f and Bact. 1.

Commercial and economic phases of market milk, with special reference to its transportation, processing, and distribution; certified milk; commercial buttermilk; milk laws; duties of milk inspectors; distribution; milk plant construction and operation. Laboratory practice includes visits to local dairies. (Not given in 1939-40.) Laboratory fee, \$3.00. (England.)

D. H. 114 s. Analysis of Dairy Products (3)—One lecture; one four-hour laboratory (consecutive). Senior year. Prerequisites, D. H. 1 f, Bact. 1, Chem. 4, and Chem 12 y.

The application of chemical and bacteriological methods to commercial dairy practice; analysis by standard chemical, bacteriological, and factory

methods; standardization and composition control; tests for adulterants and preservatives. (Not given in 1939-40). Laboratory fee, \$3.00. (England.)

D. H. 115 s. Grading Dairy Products (1)—One laboratory. Junior year. Prerequisite, D. H. 1 f.

Market grades and the judging of milk, butter, cheese, and ice cream in the commercial field. Laboratory fee, \$3.00. (England, Wiedemer.)

D. H. 116 s. Dairy Mechanics (2)—Two laboratories. Junior year. Prerequisite, D. H. 1 f.

The theory and operation of the compression system of mechanical refrigeration. Construction, design, and care of dairy equipment, repairing, soldering, pipe fitting, and wiring. Laboratory fee, \$2.00. (Hughes.)

D. H. 117 s. Dairy Accounting (1)—One laboratory. Senior year. Prerequisite, D. H. 1 f.

Methods of accounting in the market milk plant and dairy manufacturing plants. (Hughes.)

D. H. 118 f. Advanced Grading of Dairy Products (1)—One laboratory. Senior year. Prerequisite, D. H. 115 s.

Advanced work in the judging of milk, butter, cheese, and ice cream. Open only to students who comprise the dairy products judging team. Laboratory fee, \$3.00. (England, Wiedemer.)

D. H. 119 f, 120 s. Dairy Literature (1, 1)—One lecture. Junior and senior year. Prerequisites, D. H. 1 f and D. H. 2 s.

Presentation and discussion of current literature in dairying. (England, Berry.)

D. H. 121 f. Dairy Plant Experience (2)—Senior year. Prerequisite, 10 hours of Dairy Husbandry.

Ten weeks' practical experience or its equivalent (following completion of junior year) in an approved market milk plant or factory manufacturing dairy products. A written report of the work is required. (England.)

D. H. 122 s. Dairy Plant Experience (1)—Senior year. Prerequisite, D. H. 1 f.

Two hundred hours' practical experience in the University of Maryland Dairy Manufacturing Plant. The grade will be based on the dependability and efficiency of the student in performing work assigned.

(England, Hughes.)

D. H. 123 y. Methods of Dairy Research (1-3)—Credit will be given in accordance with the amount and character of work done. Elective for seniors and graduate students only.

This course is designed especially to meet the needs of dairy students who plan to pursue graduate work or enter the research or technical field of dairying. Methods of conducting dairy research and the presentation of results are stressed. A research problem which relates specifically to the work the student is pursuing will be assigned. (England, Berry.)

For Graduates

D. H. 201 f. Advanced Dairy Production (3).

A study of the newer discoveries in dairy nutrition, breeding, and management. Readings and assignments. (Turk.)

D. H. 202 f. Dairy Technology (2)—Two lectures.

A consideration of milk and dairy products from the physiochemical point of view. (England.)

D. H. 203 s. Milk Products (2)—Two lectures.

An advanced consideration of the scientific and technical aspects of milk products. (England.)

D. H. 204 f or s. Special Problems in Dairying (1-3).

Special problems which relate specifically to the work the student is pursuing will be assigned. Credit will be given in accordance with the amount and character of work done. (Staff.)

D. H. 205 f or s. Seminar (1).

Students are required to prepare papers based upon research in progress or completed for presentation before and discussion by the class. (Staff.)

D. H. 206 y. Research.—Credit to be determined by the amount and quality of work done.

The student will be required to pursue, with the approval of the head of the department, an original investigation in some phase of dairy husbandry, carry the same to completion, and report results in the form of a thesis. (England, Meade, Turk.)

ART

PROFESSOR MARTI; ASSOCIATE PROFESSOR HIGHBY.

Art 1 f, 2 s. Art in Ancient Civilization (2, 2)—Two lectures.

First semester, a survey of the architectural remains, the sculpture and painting of antiquity presented with free use of the stereopticon, and with accompanying lectures calling attention to the historical stages and the cultural development which they represent. Due attention will be given to plan and design.

Second semester, Roman art and archaeology.

Art 3 f. Medieval Art (2)—Two illustrated lectures.

An introduction to the figurative arts, and to the development of style. Art from the third century A. D. to the Renaissance. Occasional visits to the museums in Washington.

Art 4 s. Modern Art (2)—Two illustrated lectures.

Similar to Art 3 f. Art from the Renaissance to the present. Occasional visits to the museums in Washington.

ASTRONOMY

PROFESSOR T. H. TALIAFERRO.

Astr. 101 y. Astronomy (4)—Two lectures. Elective, but open only to juniors and seniors.

An elementary course in descriptive astronomy.

BACTERIOLOGY*

PROFESSORS JAMES, BLACK; ASSISTANT PROFESSOR FABER; DR. BODILY, MISS CARVER, MISS TRULLINGER, MR. NOLTE, MR. SNYDER, MR. LEVINE.

A. Bacteriology

Bact. 1 f and s. General Bacteriology (4)—Two lectures; two laboratories. Sophomore standing.

A brief history of bacteriology; microscopy; bacteria and their relation to nature; morphology; classification; metabolism; bacterial enzymes; application to water, milk, foods, and soils; relation to the industries and to diseases. Preparation of culture media; sterilization and disinfection; microscopic and macroscopic examination of bacteria; isolation, cultivation, and identification of aerobic and anaerobic bacteria; effects of physical and chemical agents; microbiological examinations. Fee, \$5.00.

Bact. 1 A f and s. General Bacteriology (2)—Two lectures. Sophomore or higher standing.

This course consists of the lectures only of Bact. 1.

Bact. 2 s. Pathogenic Bacteriology (4)—Two lectures; two laboratories. Sophomore year. Prerequisite, Bact. 1. Registration limited.

Principles of infection and immunity; characteristics of pathogenic microorganisms. Isolation and identification of bacteria from pathogenic material; effects of pathogens and their products. Fee, \$8.00.

Bact. 2 A s. Pathogenic Bacteriology (2)—Two lectures. Prerequisite, Bact. 1 and sophomore or higher standing.

This course consists of the lectures only of Bact. 2 s.

Bact. 3 s. Household Bacteriology (3)—One lecture; two laboratories. Junior year. Home Economics students only.

A brief history of bacteriology; bacterial morphology, classification, and metabolism; their relation to water, milk, dairy products, and other foods; infection and immunity; personal, home, and community hygiene. Fee, \$5.00.

Bact. 4 s. Elements of Sanitary Bacteriology (1)—One lecture. Senior year. Engineering students only.

Bacteria and their application to water purification and sewage disposal.

*One or more of the scheduled courses for advanced undergraduates and graduates may be given during the evening, if a sufficient number of students register. A special fee is charged.

For Advanced Undergraduates and Graduates

Bact. 101 f. Milk Bacteriology (4)—Two lectures; two laboratories. Junior year. Prerequisite, Bact. 1. Registration limited.

Bacteria in milk, sources and development; milk fermentation; sanitary production; care and sterilization of equipment; care and preservation of milk and cream; pasteurization; public health requirements. Standard methods of milk analysis; practice in the bacteriological control of milk supplies and plant sanitation; occasional inspection trips. Fee, \$7.00.

(Black.)

Bact. 102 s. Dairy Products Bacteriology (3)—One lecture; two laboratories. Junior year. Prerequisite, Bact. 1.

Relation of bacteria, yeasts, and molds to cream, concentrated milk, starters, fermented milks, ice cream, butter, cheese, and other dairy products; sources of contamination. Microbiological analysis and control; occasional inspection trips. Fee, \$7.00.

(Black.)

Bact. 108 s. Preservation of Poultry Products (2)—Two laboratories. Junior or senior year. Prerequisite, Bact. 1.

Studies of the microbiology of poultry, alive and during storage; microbiology of shell eggs fresh and during storage; microbiology of frozen and dried eggs. Laboratory fee, \$7.00.

(James.)

Bact. 111 f. Food Bacteriology (3)—One lecture; two laboratories. Junior year. Prerequisite, Bact. 1.

Bacteria, yeasts, and molds in foods; relation to preservation and spoilage; sanitary production and handling; food regulations; food infections and intoxications. Microbiological examination of normal and spoiled foods; factors affecting preservation. Fee, \$7.00.

(James.)

Bact. 112 s. Sanitary Bacteriology (3)—One lecture; two laboratories. Junior year. Prerequisite, Bact. 1. Registration limited.

Bacteriological and public health aspects of water supplies and water purification; swimming pool sanitation; sewage disposal; disposal of garbage and refuse; municipal sanitation. Practice in standard methods for examination of water, sewage and other sanitary analyses; differentiation and significance of the coli-aerogenes group. Fee, \$7.00.

(Black.)

Bact. 113 f and s. Advanced Methods (2)—One lecture; one laboratory. Junior year. Prerequisite, Bacteriology, 10 hours. Registration limited.

Microscopy, dark field and single cell technic, photomicrography; colorimetric and potentiometric determinations; oxidation-reduction, electrophoresis; surface tension; gas analysis; special culture methods; filtration; advanced study in media and reagent preparation. Fee, \$7.00.

(Bodily.)

Bact. 115 f. Serology (4)—Two lectures; two laboratories. Junior year. Prerequisite, Bact. 2 s. Registration limited.

Infection and resistance; agglutination, precipitation, lytic and complement fixation reactions; principles of immunity and hypersensitiveness. Prepara-

tion of necessary reagents; general immunologic technic; factors affecting reactions; applications in the identification of bacteria and diagnosis of disease. Fee, \$8.00. (Faber.)

Bact. 116 s. Epidemiology (2)—Two lectures. Junior year. Prerequisite, Bact. 1 and credit or registration in Bact. 2 or 2A.

Epidemiology of important infectious diseases, including history, characteristic features, methods of transmission, immunization and control; periodicity; principles of investigation; public health applications. Offered alternate years. (Faber.)

Bact. 117 s. Public Health (1)—One lecture. Junior or senior year. Prerequisite, Bact. 1 and Bact. 2.

A series of weekly lectures on public health and its administration, by the staff members of the Maryland State Department of Health, representing each of the bureaus and divisions. Offered alternate years, alternating with Bact. 118 s. (Not offered 1939-40.) (James, in charge.)

Bact. 118 s. Systematic Bacteriology (2)—Two lectures. Junior or senior year. Prerequisite, Bacteriology, 10 hours.

History of bacterial classification; genetic relationships; international codes of nomenclature; bacterial variation as it affects classification. Offered alternate years, alternating with Bact. 117 s. (James.)

Bact. 123 f. Bacteriological Problems (2)—Laboratory. Senior year. Prerequisite, Bact. 1 and 2 and any other courses needed for the projects. Registration limited.

This course is arranged as an introduction to research. Subject matter suitable to the needs of the particular student or problem will be arranged. The problems are to be selected, outlined, and investigated in consultation with and under the supervision of a member of the department. Results are to be presented in the form of a thesis. No graduate credit for students majoring in Bacteriology. Fee, \$7.00. (Staff.)

Bact. 124 s. Bacteriological Problems (Continued) (2)—Laboratory. Senior year. Prerequisite, Bact. 1 and 2 and any other courses needed for the projects. Registration limited. No graduate credit for students majoring in Bacteriology. Fee, \$7.00. (Staff.)

Bact. 125 f. Clinical Methods (3)—One lecture; two laboratories. Senior year. Prerequisite, Bact. 2, or consent of instructor.

Methods for microscopic examination of blood; bacteriological examination of sputum, feces and spinal fluids; microscopic and routine chemical methods for examination of urine. Fee, \$5.00. (Faber.)

Bact. 131 f, 132 s. Journal Club (1, 1)—Senior year. Prerequisites, Bact. 1 and 2.

Students will submit reports on current scientific literature or on individual problems in bacteriology, which will be discussed and criticized by members of the class and staff. (Black.)

For Graduates

Bact. 205 f. Research Methods (1)—One lecture. Prerequisite, Bacteriology, 6 hours.

Methods of research; library practice; current literature; preparation of papers; research institutions, investigators; laboratory design, equipment and supplies; academic practices; professional aids. (Black.)

Bact. 207 f, 208 s. Special Topics (1, 1)—Prerequisite, Bacteriology, 10 hours.

Presentation and discussion of fundamental problems and special subjects. (Black.)

Bact. 211 f. Bacterial Metabolism (2)—Two lectures. Senior year. Prerequisite, Bact. 1, Chem. 12 y or equivalent.

Growth, chemical composition; oxygen relations; enzymes; bacterial metabolism and respiration; chemical activities of microorganisms; industrial fermentations. (Black.)

Bact. 221 f, 222 s. Research (1-6, 1-6)—Laboratory. Credit will be determined by the amount and character of the work accomplished. Prerequisites, Bact. 1 and 2, and any other courses needed for the particular projects.

Properly qualified students will be admitted upon approval of the department head and with his approval the student may select the subject for research. The investigation is outlined in consultation with and pursued under supervision of a faculty member of the department. The results obtained by a major student working towards an advanced degree are presented as a thesis, a copy of which must be filed with the department. Fee, \$3.00 per credit hour. (Staff.)

Bact. 231 f, 232 s. Seminar (2-2)—Prerequisite, Bacteriology, 10 hours.

Discussions and reports prepared by the student on current research, selected subjects, and recent advances in bacteriology. (James.)

B. Food Technology*

F. Tech. 1 s. Introduction to Food Technology (1)—One lecture.

Discussions of the general phases of study comprising food technology.

For Graduates and Advanced Undergraduates

F. Tech. 100 f. Food Microscopy (2)—Two laboratories.

Microscopical analysis of foods following the methods used in the Federal Government and other agencies. Studies of the structural composition of agricultural and manufactured foods. Use of microscopic tests in factory control and analyses. Fee, \$7.00.

*One or more of the scheduled courses for advanced undergraduates and graduates may be given during the evening, if a sufficient number of students register. A special fee is charged.

F. Tech. 110 f. Regulatory Control (1)—One lecture and demonstration. Methods followed in the control of foods in interstate and intrastate commerce. Consideration of laboratory basis of standards of control. Offered alternate years. (Not offered 1939-40.)

F. Tech. 120 s. Food Sanitation (2)—One afternoon devoted to lecture, laboratory, and field work. Prerequisite Bact. 1 and Bact. 111 f or their equivalent. Enrollment limited, with preference given to students majoring in this field.

Principles of sanitation in food manufacture and distribution; methods of control of sanitation in commercial canning, pickling, bottling, preserving, refrigeration, dehydration, etc. Fee, \$7.00. (James.)

F. Tech. 130 y. Technology Conference (2)—One lecture. Senior standing.

Reports and discussions of current developments in the field of food technology. (James.)

BOTANY

PROFESSORS APPLEMAN, NORTON, TEMPLE; ASSOCIATE PROFESSORS BAMFORD, JEHL; ASSISTANT PROFESSORS BROWN, DUBUY, WOODS, SHIRK; MR. WALKER, MR. BELLOWS, MR. JEFFERS, MR. JONES, MR. HEINZE, MR. OLSON, MR. LEAVENWORTH.

A. General Botany and Morphology

Bot. 1 f. General Botany (4)—Two lectures; two laboratories.

General introduction to botany, touching briefly on all phases of the subject. The chief aim in this course is to present fundamental biological principles rather than to lay the foundation for professional botany. The student is also acquainted with the true nature and aim of botanical science, its methods, and the value of its results. Laboratory fee, \$5.00.

Bot. 2 s. Introductory Botany (3)—Two lectures; one demonstration or laboratory period.

A course similar to Bot. 1 f, except that only one demonstration or laboratory period is required. Laboratory fee, \$3.00.

Bot. 3 s. General Botany (4)—Two lectures; two laboratories. Prerequisite, Bot. 1 f.

A continuation of Bot. 1 f, but with emphasis upon the evolutionary development of the plant kingdom and the morphological changes correlated with it. A study of algae, fungi, liverworts, mosses, ferns, and their relatives, and the seed plants. Several field trips will be arranged. Laboratory fee, \$3.00.

Bot. 4 s. Local Flora (2)—Two laboratories.

A study of common plants, both wild and cultivated, and the use of keys, floral manuals, and other methods of identifying them. Largely field work.

For Advanced Undergraduates and Graduates

Bot. 101 f. Plant Anatomy (3)—One lecture; two laboratories. Prerequisite, Bot. 1 f.

The origin and development of the organs and tissue systems in the vascular plants, with special emphasis on the structures of roots, stems, and leaves. Reports of current literature are required. Laboratory fee, \$3.00. (Bamford.)

Bot. 103 f. Plant Taxonomy (3)—One lecture; two laboratories.

Classification of the vegetable kingdom, and the principles underlying it; the use of other sciences and all phases of botany as taxonomic foundations; methods of taxonomic research in field, garden, herbarium, and library. Each student to work on a special problem during some of the laboratory time. (Not given in 1939-1940.) (Norton.)

Bot. 104 s. Advanced Plant Taxonomy (3)—One lecture; two laboratories.

Principles and criteria of plant taxonomy. Reviews and criticisms of current taxonomic literature. Each student works on an original problem during the laboratory time. (Norton.)

Bot. 105 s. Economic Plants (2)—Two lectures.

The names, taxonomic position, native and commercial geographic distribution, and use of the leading economic plants of the world are studied. A collection of plant products from markets, stores, factories, etc., is made by students to illustrate the useful plants both in the natural form and as used by man. (Not given in 1939-1940.) (Norton.)

Bot. 106 f. History and Philosophy of Botany (1)—One lecture.

Discussion of the development of ideas and knowledge about plants, also a survey of contemporary work in botanical science. (Norton.)

Bot. 107 s. Methods in Plant Histology (2)—Two laboratories.

Principles and methods involved in the preparation of permanent slides. Laboratory fee, \$3.00. (Brown.)

For Graduates

Bot. 201 s. Cytology (4)—Two lectures; two laboratories. Prerequisite, Bot. 1 f.

A detailed study of the cell during its metabolic and reproductive stages. The major portion is devoted to chromosomes in mitosis and meiosis, and the relation of these stages to current theories of heredity and evolution. The laboratory involves the preparation, examination, and illustration of cytological material by current methods. Laboratory fee, \$3.00. (Bamford.)

Bot. 202 s. Plant Morphology (2)—Two lectures and demonstrations.

A comparative study of the morphology of the flowering plants, with special reference to their phylogeny and development. Laboratory fee, \$3.00. (Bamford.)

Bot. 203 f and s. Seminar (1).

The study of special topics in plant morphology, anatomy, and cytology. (Bamford.)

Bot. 204. Research.—Credit according to work done. (Norton, Bamford.)

Note: See announcement on page 362 for further botany courses given at the Chesapeake Biological Laboratory.

B. Plant Pathology and Mycology

Plt. Path. 1 f. Diseases of Plants (4)—Two lectures; two laboratories. Prerequisite, Bot. 1 f.

An introductory study in the field, in the laboratory, and in the literature, of symptoms, causal agents, and control measures of the diseases of plants. The work is so arranged that a student may devote part of his time to the important diseases of the plants in which he is particularly interested. Laboratory fee, \$3.00.

For Advanced Undergraduates and Graduates

Plt. Path. 101 f. Diseases of Fruits (2-4)—Two lectures; laboratory according to credit desired. Prerequisite, Plt. Path. 1 f.

An intensive study intended to give a rather thorough knowledge of the subject matter, such as is needed by those who expect to become advisers in fruit production, as well as those who expect to become specialists in plant pathology. Fee, \$3.00. (Temple.)

Plt. Path. 102 s. Diseases of Garden and Field Crops (2-4)—Two lectures; laboratory according to credit desired. Prerequisite, Plt. Path. 1 f.

The diseases of garden crops, truck crops, cereal and forage crops. Intended for students of vegetable culture, agronomy, and plant pathology, and for those preparing for county agent work. Fee, \$3.00. (Temple.)

Plt. Path. 103 s. Research Methods (2)—One conference and five hours of laboratory work. Prerequisite, Plt. Path. 1 f, or equivalent.

Technic of plant disease investigations; sterilization; cultural methods; isolation of pathogens; inoculation methods; and photography. Laboratory fee, \$3.00. (Woods.)

Plt. Path. 104 f and s. Minor Investigations (1-3)—Credit according to work done. A laboratory course with conferences. Prerequisite, Plt. Path. 1 f.

In this course only minor problems or special phases of major investigations may be undertaken. Their solution may include a survey of the

literature on the problem under investigation and both laboratory and field work. Laboratory fee, \$3.00. (Norton, Temple, Woods.)

Plt. Path. 105 s. Diseases of Ornamentals (2)—Two lectures.

The most important diseases of plants grown in greenhouse, flower garden, and landscape, including shrubs and shade trees. (Temple.)

Plt. Path. 106 y. Seminar (2).

Conferences and reports on plant pathological literature and on recent investigations. (Temple, Norton, Woods.)

Plt. Path. 107 f. Plant Disease Control (3)—Two lectures; one laboratory. Prerequisite, Plt. Path. 1 f.

An advanced course dealing with the theory and practice of plant disease control; the preparation of sprays and other fungicides and the testing of their toxicity in greenhouse and laboratory; demonstration and other extension methods adapted to county agent work and to the teaching of agriculture in high schools. (Temple.)

Plt. Path. 108 f. Mycology (4)—Two lectures; two laboratories.

An introductory study of the morphology, life histories, classification, and economics of the fungi. Laboratory fee, \$3.00. (Norton, Woods.)

For Graduates

Plt. Path. 201 s. Virus Diseases (2)—Two lectures.

An advanced course, including a study of the current literature on the subject and the working of a problem in the greenhouse. (Woods.)

Plt. Path. 203 f. Non-Parasitic Diseases (3)—Two lectures; one laboratory.

Effects of maladjustment of plants to their environment; injuries due to climate, soil, gases, dusts and sprays, fertilizer, improper treatment and other detrimental conditions. (Norton.)

Plt. Path. 205 y. Research.—Credit according to work done.

(Norton, Temple, Woods.)

C. Plant Physiology

For Advanced Undergraduates and Graduates

Plt. Phys. 101 f. Plant Physiology (4)—Two lectures; two laboratories. Prerequisite, Bot. 1 f.

A summary view of the general physiological activities of plants. The aim in this course is to stress principles rather than factual details. Laboratory fee, \$3.00. (Brown.)

Plt. Phys. 102 s. Plant Ecology (3)—Two lectures; one field trip. Prerequisite, Bot. 1 f.

The study of plants in relation to their environments. Plant formations and successions in various parts of the country are briefly treated. Much

of the work, especially the practical, must be carried on in the field, and for this purpose type regions adjacent to the University are selected. Students pay cost of field trips. (Brown.)

For Graduates

Plt. Phys. 201 s. Plant Biochemistry (4)—Two lectures; two laboratories. Prerequisite, an elementary knowledge of plant physiology and organic chemistry.

An advanced course in plant physiology, in which the chemical aspects are especially emphasized. It deals with the important substances in the composition of the plant body and with the important processes in plant life. Laboratory fee, \$3.00. (Appleman, Shirk.)

Plt. Phys. 202 A f. Plant Biophysics (2)—Two lectures. Prerequisites, Bot. 1 f and Plt. Phys. 101 f or equivalent.

An advanced course dealing with the operation of physical forces in plant life processes. Students electing this course should elect Plt. Phys. 202 Bf. (Appleman, Brown.)

Plt. Phys. 202 Bf. Biophysical Methods (2)—Laboratory fee, \$3.00. (Shirk.)

Plt. Phys. 203 s. Plant Microchemistry (2)—One lecture; one laboratory. Prerequisites, Bot. 1 f, Chem. 1 y, or equivalents.

The isolation, identification, and localization of organic and inorganic substances found in plant tissues by micro-technical methods. The use of these methods in the study of metabolism in plants is emphasized. Laboratory fee, \$3.00. (Brown.)

Plt. Phys. 204 f. Growth and Development (2)—(Not given 1939-40.) (Appleman, Brown, duBuy.)

Plt. Phys. 205 f and s. Seminar (1).

Students are required to prepare reports on papers in the current literature. These are discussed in connection with the recent advances in the subject. (Appleman.)

Plt. Phys. 206. Research.—Credit according to work done.

Students must be specially qualified by previous work to pursue with profit the research to be undertaken. (Staff.)

BUSINESS ADMINISTRATION†

PROFESSORS STEVENS, WEDEBERG, GRUCHY; LECTURER, MERRICK; ASSOCIATE PROFESSOR MARSHALL; ASSISTANT PROFESSORS LAYTON, DANIELS, CISSEL; MR. REID, MR. MULLIN, MR. TRIPLETT, MR. ———.

Some of the specialized courses in the following lists may be offered only in alternate years, whenever prospective enrollments therein do not justify repeating annually. Such courses are indicated by an asterisk.

†See also related courses in Economics; also in Agricultural Economics, especially A. E. 1 f, 2 s, 102 s, 104 s, 106 s, 109 y, 210 s, 211 f, and 213 s, 214 s, and 215 s.

A. Accounting

Acct. 51 y. Principles of Accounting (8)—Three lectures; one laboratory.

This course has two aims, namely, to give the prospective business man an idea of accounting as a means of control, and to serve as a basic course for advanced and specialized accounting. A study is made of methods and procedures of accounting in the sole proprietorship, partnership, and corporation.

For Advanced Undergraduates and Graduates

Acct. 101 f, 102 s. Advanced Accounting (3, 3)—Three lectures. Prerequisite, Acct. 51 y.

Advanced theory and problems in connection with the following: working papers, statements; corporations; actuarial science; cash; accounts receivable; notes and acceptances; inventories, consignments; installment sales; tangible fixed assets; intangible assets; investments; liabilities; funds and reserves; correction of statements and books; comparative statements; the analysis of working capital; miscellaneous ratios; profit and loss analysis; and statement of application of funds.

Acct. 121 f. Cost Accounting (2)—Two lectures. Prerequisite, Acct. 51 y.

The need and value of cost accounting; cost systems and cost classifications; classification of accounts; subsidiary ledgers and cost records; outline of specific order cost accounting; accounting for material; material storage and consumption; valuation of materials; accounting for labor costs; special features of accounting for labor cost; accounting for manufacturing expense; distribution of service department costs; distribution of manufacturing expense to production; control of distribution cost; monthly closing entries. Theory, problems, and practice set. (Cissel.)

Acct. 122 s. Advanced Cost Accounting (2)—Two lectures. Prerequisite, Acct. 121 f.

Preparation of analytical statements; comparative statements; process cost accounting; standard costs; analysis of variances; accounting for standard costs; estimating cost systems; special considerations; arguments for and against including interest on investments; graphic charts; uniform methods. A discussion of advanced theory and problems. (Cissel.)

Acct. 149. Apprenticeship in Public Accounting.—No credit. Open only to seniors in the upper ten per cent of the class. Prerequisite, Acct. 171 (credit or concurrent registration).

A one month's apprenticeship with nationally known firms from about January 15 to February 15.

Acct. 161 f. Income Tax Procedure (3)—Three lectures. Prerequisite, Acct. 102 s.

Income tax in theory and practice. Selected cases and problems illustrating the definition of taxable income of individuals, corporations, and estates. (Wedeborg.)

Acct. 171 f, 172 s. Auditing Theory and Practice (2, 2)—One lecture; one laboratory. Prerequisite, Acct. 102 s.

Principles of auditing, including a study of different kinds of audits, the preparation of reports, and illustrative cases or problems. (Cissel.)

Acct. 181 f, 182 s. Specialized Accounting (3, 3)—Three lectures. Prerequisite, Acct. 102 s.

Accounting for partnerships; ventures; insurance; receiverships; branches; consolidations; mergers; foreign exchange; estates and trusts; budgets; public accounts; savings banks; commercial banks; national banks; building and loan associations; stock brokerage; consignments; department stores; real estate; extractive industries; hotels; government; electric utilities; and others. (Wedeborg.)

Acct. 186 s. C. P. A. Problems (3)—Three lectures. Prerequisite, consent of the instructor.

This course is arranged to coordinate all previous work in accounting with special emphasis on the solution of practical C. P. A. problems and the discussion of C. P. A. theory. (Wedeborg.)

For Graduates

Acct. 228 f, 229 s. Accounting Systems (3, 3)—Prerequisite, Acct. 181 f and 182 s. Students who do not have these prerequisites must attend all classes in Acct. 181 f and 182 s concurrently.

A discussion of the more difficult problems in connection with the industries covered in Acct. 181 f and 182 s. Also includes the statement of affairs; realization and liquidation account; parent and subsidiary accounting; and financing. (Wedeborg.)

Acct. 299 f. Special Problems in Accounting (3)—Prerequisite, graduate standing, preliminary courses in the field of specialization, and permission of the instructor.

Investigations of specific problems, as directed by individual conferences with the instructor. The subjects selected for investigation may be closely allied with, but must not be the same as, the subject discussed in the student's major thesis. (Wedeborg.)

B. Finance‡

Finance 53 s. Money and Banking (3)—Prerequisite, Econ. 51 y.

An analysis of the basic principles of money and credit; the history of money; the operations of the commercial banking system. (Gruchy.)

For Advanced Undergraduates and Graduates

Finance 105 f.* Consumer Financing (3)—Prerequisite, Econ. 51 y or 57.

The economics of installment selling; methods of financing the consumer; and operations of the personal finance company. (Gruchy.)

Finance 106 f. Public Finance (3)—Prerequisite, Econ. 51 y or 57.

The nature of public expenditures, sources of revenue, taxation, and budgeting. Special emphasis on the practical, social, and economic problems involved. (Gruchy.)

Finance 111 f. Corporation Finance (3)—Prerequisite, Econ. 51 y or 57, Acct. 51 y.

The organization and financing of a business enterprise. Types of securities and their utilization in apportioning income, risk, and control. Problems of capitalization, refunding, reorganization, and expansion. Procurement of capital. Public regulation of the sale of securities. (Stevens, Mullin.)

Finance 115 f. Investments (3)—Prerequisite, Finance 111 f.

Sources of information for the investor. Classes of investments, government bonds, municipals, real estate mortgages, public utilities, railroads, industrial securities, movement of security prices, analysis of financial statements, adapting the investment policy to the purpose and needs of the investor. (Stevens, Mullin.)

Finance 116 s.* Investment Banking (3)—Prerequisite, Econ. 51 y.

A study of the functions and operations of investment banking institutions and their relation to the market for long-term credit, and with emphasis on the trends and problems of investment banking. (Gruchy.)

Finance 118 f.* Stock and Commodity Exchanges (3)—Prerequisite, Econ. 51 y or 57.

An analysis of the operations of the various exchanges. Brokerage houses and methods of trading. Regulation of the exchanges. (Gruchy.)

Finance 121 s.* Advanced Banking Principles and Practices (3)—Prerequisite, Econ. 51 y or 57, and Finance 53 s.

The incorporation, organization, and operation of banks. Functions of departments and problems of customer relations. Bank legislation and governmental regulation. (Gruchy.)

‡See also related courses in Agricultural Economics, especially A. E. 104 s, 210 s, and 211 f.

Finance 125 f.* Credits and Collections (3)—Prerequisite, Acct. 51 y. Nature and function of credit and use of credit instruments. Principles of credit investigation and analysis. The work of the credit manager.

(Gruchy.)

Finance 129 s.* International Finance (3)—Prerequisite, Econ. 51 y or 57.

Foreign exchange theory and practice. International aspects of monetary and banking problems. International money markets. The gold problem and the Bank for International Settlements.

(Gruchy.)

Finance 141 f. Insurance (3)—Prerequisite, Econ. 51 y.

A survey of the major principles and practices of life and property insurance, with special reference to their relationship to our social and economic life.

Finance 149 f, s, or S. Financial Internship (1-3)—Prerequisite, credit or concurrent registration in Finance 51 y and any specialized finance courses needed for proper understanding of a particular business, such as Finance 105, 106, 111, 115, 116, 118, 125, 129, 141 or 151. Consent of the instructor is necessary; this will not be given unless the position arranged for a given registrant in a commercial business is of such a nature that effective experience can be obtained.

This practice in actual work in an approved financial institution under guidance may be arranged for any period of the year. The method of individual conferences, reports, and collateral reading.

(Gruchy.)

Finance 151 s.* Real Estate (3)—Prerequisite, Econ. 51 y or 57.

The principles and practices involved in owning, operating, merchandising, leasing, and appraising real estate and real estate investments.

Finance 199 s. Financial Analysis and Control (3)—Prerequisite, senior standing or consent of instructor, and Finance 111 f.

Internal administration of a business from the viewpoint of the chief executive. Departmentalization and functionalization, anticipation and budgetary control of sales, purchases, production, inventory, expenses, and assets. The coordination of financial administration. Policy determination, analysis, and testing.

(Stevens, Mullin.)

For Graduates

Finance 229 f or s. Special Problems in Finance (1-3)—Prerequisite, graduate standing, preliminary courses in the field of specialization, and permission of the instructor.

Individual study of specific problems as directed by the instructor. The subjects selected for investigation may be closely allied with, but must not be the same as, the subject discussed in the student's major thesis.

(Stevens, Gruchy.)

C. Marketing‡

For Advanced Undergraduates and Graduates

Mkt. 101 f. Principles of Marketing (3)—Prerequisite, Econ. 51 y or 57.

A study of the fundamental principles of assembling and dispersing manufactured goods; functions of wholesale and retail middlemen; branch house distribution; mail order and chain store distribution; price and price policies; cash and quality discounts; price maintenance; and a discussion of the problem of distribution costs.

(Reid.)

Mkt. 105 s. Salesmanship and Salesmanagement (3)—Prerequisite, Econ. 51 y or 57, and Mkt. 101 f or consent of the instructor.

An analysis of the fundamental principles of salesmanship and the technique of personal presentation of ideas, goods, and services. Analysis of customer buying motives, habits, and sales reactions. The structure and function of the sales organization and its relation to the activities of the production and other departments. Building, training, equipping, stimulating, and supervising a sales force.

(Reid.)

Mkt. 109 f.* Principles of Advertising (3)—Prerequisite, Econ. 51 y or 57.

Functions and economic implications of advertising; selection and adaptation of media to various lines of business. Layouts, copy writing, and campaign planning. Objectives, appropriations, and measurements of effectiveness.

(Mullin.)

Mkt. 115 s.* Purchasing Technique (3)—Prerequisite, Econ. 51 y or 57.

Ascertaining sources of supply; substitutes; utilization of catalogues, files, pooled information, and cooperative purchasing; buying on specifications, sampling, testing, bargaining, terms, discounts, relations with salesmen. Procurement, analysis, and interpretation of market and price data. Materials control. Interdepartmental and office organization.

(Reid.)

Mkt. 119 s.* Retail Store Management and Merchandising (3)—Prerequisite, Mkt. 101 f.

Retail store organization, location, and store policy; pricing policies, price lines, brands, credit policies; records as a guide to buying; budgetary control of inventory and expenses; purchasing methods; supervision of selling; training and supervision of retail sales force; administrative problems.

Mkt. 149 f, s, or S. Internship in Marketing (1-3)—Prerequisite, credit or concurrent registration in Mkt. 101, and any specialized marketing course needed for proper understanding of a particular business, such as Mkt. 105, 109, 115, or 119. Consent of the instructor is necessary; this will not be given unless the position assigned for a given registrant in a

‡See also related courses in Agricultural Economics, especially A. E. 102 s, 103 f, 105 s, 106 s, and 215 s; and in Psychology, especially Psych. 4 f, 140 f, and 141 s.

commercial business is of such a nature that effective experience can be obtained. This internship may be arranged for any period of the year.

Practice in actual marketing work under guidance. The method of individual conferences, reports, and collateral reading.

(Stevens, Reid, Mullin.)

Mkt. 199 s.* Marketing Research and Market Policies (3)—Prerequisite, nine credit hours in marketing.

A study of the methods and problems involved in marketing research.
(Stevens, Reid.)

For Graduates

Mkt. 229 f or s. Problems in Marketing (1-3)—Prerequisite, graduate standing, preliminary courses in the field of specialization, and permission of the instructor.

Individual study of specific problems as directed by the instructor. The subjects selected for investigation may be closely allied with, but must not be the same as, the subject discussed in the student's major thesis.
(Marketing Staff.)

D. Trade and Transportation†

T. and T. 1 f. Economic Geography (3).

A study of economic and physical factors which are responsible for the location of industries and which influence the production, distribution, and exchange of commerce throughout the world. This course deals primarily with regional geography; that is, the industrial development and commerce of the separate regions and countries.

Juniors receive two credits; not open to seniors.

T. and T. 4 s. Development of Commerce and Industry (3).

Ancient and medieval economic organization. The guild, domestic, and mercantile systems. The industrial revolution, laissez-faire, modern industrial and commercial organizations in Europe and America. Post-war restrictions on commerce.

Juniors receive two credits; not open to seniors.

For Advanced Undergraduates and Graduates

T. and T. 101 f. Principles of Foreign Trade (3)—Prerequisite, Econ. 51 y, T. and T. 1 f, T. and T. 4 s.

The basic principles of import and export trade, as influenced by the differences in methods of conducting domestic and foreign commerce.

T. and T. 111 f.* Transportation (3)—Prerequisite, Econ. 51 y or 57.

Development of railway and truck transportation in the United States. Facilities for transporting agricultural and industrial products. Rate

†See also related courses in Agricultural Economics, especially A. E. 1 f, 212 f, and 213 s.

structures and tariffs. Effects of changing transportation methods upon agricultural and business organization. (Daniels.)

T. and T. 121 s.* Export and Import Trade Procedure (3)—Prerequisite, T. and T. 101 f.

Functions of various exporting agencies; documents and procedures used in exporting and importing transactions. Methods of procuring goods in foreign countries; financing of import shipments; clearing through the customs districts; and distribution of goods in the United States. Field trips are arranged to study actual import and export procedure. A nominal fee is collected before each trip to cover expenses incurred. (Daniels.)

T. and T. 149 f, s, or S. Foreign Trade Internship (1-3)—Prerequisite, credit or concurrent registration in T. and T. 101 and any other specialized course needed for proper understanding of a particular business, such as T. and T. 111 f, 121 s. Consent of the instructor is necessary; this will not be given unless the position arranged for a given registrant in a commercial business is of such a nature that effective experience can be obtained.

This practical work under guidance in an approved exporting or importing house, may be arranged for any period during the year. The method of individual conferences, reports, and collateral reading. (Daniels.)

For Graduates

T. and T. 229 s. Problems in Foreign Trade (1-3)—Prerequisite, graduate standing, preliminary courses in the field of specialization, and permission of the instructor.

Individual study of specific problems as directed by the instructor. The subjects selected for investigation may be closely allied with, but must not be the same as, the subject discussed in the student's major thesis.
(Daniels.)

E. Organization and Management‡

O. and M. 51 f. Elements of Business (2)—Prerequisite, junior standing and consent of the instructor.

A rapid survey of the elements of business and of the management of personal finances for students of home economics and other curricula not primarily concerned with business administration. Majors in General or Applied Economics will be admitted to the course only in case there are vacancies after providing for other students, and they will be required to do additional work.

For Advanced Undergraduates and Graduates

O. and M. 101 s, 102 f. Business Law (3, 3)—Prerequisite, junior standing. Section A is limited to majors in Accounting, or those who have consent of the instructor.

‡See also related courses in Psychology, especially Psych. 3 s, 160 f, and 161 s.

Legal aspects of business relationships, contracts, negotiable instruments, agency, partnerships, corporations, real and personal property, and sales. Section A is a more intensive treatment of the law of contracts, sales, negotiable instruments, agency and partnerships than is given in Section B, and is designed to prepare students for the accounting profession in Maryland. (Merrick.)

O. and M. 103 f. Advanced Business Law (2)—Prerequisite, O. and M. 101 s and 102 f, Section A.

The principles of the law of corporations, trusts, and the administration of the estates of bankrupts and decedents, presented in a manner calculated to prepare students for the accounting profession in Maryland. (Merrick.)

O. and M. 110 f. Fundamentals of Business Administration (2)—Prerequisite, open only to senior Engineers.

An analysis of the business structure, showing the functions of production, marketing, and finance, and the use of the tools of accounting and statistics. Designed to show the engineer his relationship as a functional expert to other functional experts and to give an academic opportunity to apply technical knowledge in business problems.

O. and M. 121 s. Industrial Management (3)—Prerequisite, Econ. 51 y or 57.

A study of major problems of management in the acquisition, organization, and control of the factors and agents of production—plant, machinery and equipment, raw materials, and personnel. Factory location and layout. Scheduling. Personnel organization and incentives. (Mullin.)

O. and M. 149 f, s, or S. Cooperative Internship (1-3)—Prerequisite, credit or concurrent registration in Econ. 161 and any specialized courses needed for proper understanding of a particular cooperative enterprise. Consent of the instructor is necessary; this will not be given unless the position arranged for a given registrant is of such a nature that effective experience can be obtained.

This practical work under guidance in an approved cooperative organization may be arranged for any period during the year. The method of individual conferences, reports, and collateral reading. (Stevens.)

O. and M. 161 s. Problems in Cooperative Administration (3)—Prerequisite, six semester hours in accounting, three in finance, eight in economics, three in statistics, three in organization and management, and three in cooperative theory. Similar to former O. and M. 299. Graduate students will be required to do additional work.

A seminar course in the practical problems of cooperative management that is intended to integrate previous managerial courses. A limited amount of travel is required, for which a nominal fee is collected at the time of each field trip to cover the expenses incurred. (Stevens.)

For Graduates

O. and M. 201 f, 202 s. Research (1-3, 1-3)—Credit in proportion to work accomplished. Student must be especially qualified by previous work to pursue effectively the research to be undertaken.

Investigation or original research in problems of business organization and operation under supervision of the instructor. (Staff.)

O. and M. 208 s. Legal Aspects of Business Problems (2)—Prerequisite, six semester hours in commercial law, twelve in accounting, nine in economics, and six in political science.

Law as an institution conditioning economic behavior. The law applicable to problems in management and production, marketing, and finance.

O. and M. 291 f or s. Problems in Business Organization (1-3)—Prerequisite, preliminary courses in the field of specialization, six semester hours in organization and management, eight in accounting, nine in economics, and three in statistics.

Individual investigation of specific problems, under direction of the instructor. The subjects selected for investigation may be closely allied with, but must not be the same as, the subject discussed in the student's major thesis.

CHEMISTRY

PROFESSORS BROUGHTON, DRAKE, HARING, WHITE; ASSOCIATE PROFESSOR WILEY; ASSISTANT PROFESSOR SUPPLEE; INSTRUCTORS LAMB, SVIRBELY, WESTGATE, WILLIAMS; MR. BROOKS, MR. CARHART, MR. CHAPMAN, MR. DAVIS, MR. DITTMAR, MR. HACKNEY, MR. LANE, MR. LANN, MR. LEED, MR. SMITH, MR. STANTON, MR. SWEENEY, MR. TOLLEFSON, MR. WHITON, MR. YOUNG.

A. Inorganic Chemistry

Chem. 1 A y. General Chemistry (8)—Two lectures; two laboratories.

A study of the non-metals and metals. One of the main purposes of the course is to develop original work, clear thinking, and keen observation.

Course A is intended for students who have not had high school chemistry, or have passed their high school chemistry with a grade lower than B. Fee, \$7.00 per semester.

Chem. 1 B y. General Chemistry (8)—Two lectures; two laboratories.

This course covers the same ground as Chem. 1 A y; but the subject matter is taken up in more detail, with emphasis on chemical theory and important generalization. The laboratory work deals with fundamental principles, the preparation and purification of compounds, and a systematic qualitative analysis of the more common metals and acid radicals.

Course B is intended for students who have passed an approved high-school chemistry course with a grade not lower than B. Fee, \$7.00 per semester.

Chem. 2 y. Qualitative Analysis (6)—Two lectures; one laboratory the first semester; and one lecture; two laboratories the second semester. Prerequisite, Chem. 1 y.

A study of the reactions of the common metals and the acid radicals, their separation and identification, and the general underlying principles. Fee, \$7.00 per semester.

Chem. 3 y. Introductory Chemistry (6)—Two lectures; one demonstration.

The subject matter is essentially the same as that of Chem. 1 A y. This course is designed for students desiring a working knowledge of elementary chemistry, without the laboratory part. It is not accepted as a prerequisite for advanced chemistry courses. If one subsequently desires credit for Chem. 1 y, he may secure this by adding four credits in the laboratory of Chem. 1 y. Fee, \$3.00 per semester.

For Graduates

Chem. 200 A y. Chemistry of the Rarer Elements (4)—Two lectures. Prerequisite, Chem. 2 y.

A course devoted to the study of the elements not usually considered in the elementary course. (White.)

Chem. 200 B y. Advanced Inorganic Laboratory (4)—Two laboratories. Prerequisite, consent of instructor.

A laboratory study of the compounds of elements considered in Chem. 200 A y. Fee, \$7.00 per semester. (White.)

Chem. 201 f or s. An Introduction to Spectrographic Analysis (1).

A laboratory course designed to acquaint the student with the fundamentals of spectrographic analysis. Fee, \$7.00 per semester. (White.)

Chem. 202 y. Theory of Solutions (4)—Two lectures. Prerequisite, Chem. 102 A y.

A systematic study of the theories and properties of solutions. Subjects considered are solubility, regular solutions, dipole moments, solution kinetics, and modern theories of dilute and concentrated electrolytes. (Svirbely.)

Chem. 230 f. Chemical Microscopy (2 or 4)—Two or four laboratories.

A laboratory course designed to acquaint the student with the fundamentals of microscopic analysis. Fee, \$7.00 per semester. (Svirbely.)

B. Analytical Chemistry

Chem. 4 f or s. Quantitative Analysis (4)—Two lectures; two laboratories. Prerequisite, Chem. 1 y.

Quantitative analysis for premedical students, with special reference to volumetric methods. Fee, \$7.00 per semester.

Chem. 6 y. Quantitative Analysis (8)—Two lectures; two laboratories. Prerequisite, Chem. 2 y.

The principal operations of gravimetric analysis. Standardization of weights and apparatus used in chemical analysis. The principal operations of volumetric analysis, a study of indicators, typical volumetric and colorimetric methods. The calculations of volumetric and gravimetric analysis are emphasized. Required of all students whose major is chemistry. Fee, \$7.00 per semester.

For Advanced Undergraduates and Graduates

Chem. 101 y. Advanced Quantitative Analysis (10)—Two lectures; three laboratories. Prerequisite, Chem. 6 y, or its equivalent.

A broad survey of the field of inorganic quantitative analysis. The first semester is devoted to mineral analysis, including the analysis of silicates and carbonates. The second semester is devoted to a study of the analysis of iron, steel, and such other materials as best fit the needs of the individual student. Fee, \$7.00 per semester. (Wiley.)

For Graduates

Chem. 240 y. Special Problems in Quantitative Analysis (4)—Two laboratories. Prerequisite, Chem. 6 y. Laboratory work and conferences.

A complete treatment of some special problem or problems, chosen to meet the needs and interest of the individual student. Fee, \$7.00 per semester. (Wiley.)

C. Organic Chemistry

Chem. 8 A y. Elementary Organic Chemistry (4)—Two lectures. Prerequisite, Chem. 1 y.

This course includes an elementary study of the fundamentals of organic chemistry, and is designed to meet the needs of students specializing in chemistry, and of premedical students.

Chem. 8 B y. Elementary Organic Laboratory (4)—Two laboratories.

A course designed to familiarize the students with the fundamental methods of the organic laboratory. This course, with Chem. 8 A y, satisfies the premedical requirements in organic chemistry. Fee, \$8.00 per semester.

For Advanced Undergraduates and Graduates

Chem. 116 y. Advanced Organic Chemistry (4)—Two lectures. Prerequisite, Chem. 8 A y and 8 B y, or their equivalent.

A course devoted to a more advanced study of the compounds of carbon than is undertaken in Chem. 8 A y. Graduate students who desire an accompanying laboratory course should elect Chem. 210 y. (Drake.)

Chem. 117 y. Organic Laboratory (2)—One laboratory.

A course devoted to an elementary study of organic qualitative analysis. The work includes the identification of unknown organic compounds, and

corresponds to the more extended course, Chem. 207. Fee, \$8.00 per semester. (Williams.)

Chem. 118 y. Advanced Organic Laboratory (2)—One laboratory.

A study of organic quantitative analysis and the preparation of organic compounds. Quantitative determinations of carbon and hydrogen, nitrogen, and halogen are carried out, and representative syntheses, more difficult than those of Chem. 8 B y are studied. Fee, \$8.00 per semester. (Williams.)

For Graduates

Chem. 203 A f. Stereochemistry (2)—Two lectures.

A comprehensive study of stereoisomerism. (Not offered 1939-40.) (Drake.)

Chem. 203 B f. The Organic Chemistry of Nitrogen (2)—Two lectures.

An advanced study of the more important organic compounds containing nitrogen. (Not offered in 1939-40.) (Drake.)

Chem. 203 C f. The Chemistry of Certain Natural Products (2)—Two lectures.

A study of the structure, and reactions of various naturally occurring organic substances. (Drake.)

Chem. 205 f or s. Organic Preparations (4)—Four laboratories.

A laboratory course, devoted to the synthesis of various organic compounds, and designed to fit the needs of students whose laboratory experience has been insufficient to enable them to pursue research in organic chemistry. Fee, \$8.00 per semester. (Williams.)

Chem. 206 f or s. Organic Microanalysis (4)—Prerequisite, consent of the instructor.

A laboratory study of the methods of Pregl for the quantitative determination of halogen, nitrogen, carbon and hydrogen, and methoxyl. Fee, \$8.00 per semester. (Drake.)

Chem. 207 f or s. Organic Qualitative Analysis (2-6).

Laboratory work devoted to the identification of pure organic substances and of mixtures. This course serves as an intensive preparation for the problems of identification encountered in organic research, and should be taken by all students planning to do research in organic chemistry. Fee, \$8.00 per semester. (Williams.)

Chem. 210 y. Advanced Organic Laboratory (4 or 6)—Two or three laboratories. Students electing this course should elect Chem. 116 y.

The content of the course is essentially that of Chem. 117 y and 118 y, but may be varied within wide limits to fit the needs of the individual student. Fee, \$8.00 per semester. (Williams.)

Chem. 235 A s. Thermal Reactions of Organic Substances (2)—Two lectures.

A study of decompositions, rearrangements, and condensations induced by heat. (Not offered 1939-40.) (Williams.)

Chem. 235 B s. Physical Aspects of Organic Chemistry (2)—Two lectures.

The practical applications of modern theories of physics and physical chemistry to the problems of structure and reactions of organic substances. (Williams.)

Chem. 235 C s. The Chemistry of the Carbohydrates (2)—Two lectures.

A study of the sugars, the polysaccharides, and their derivatives. (Not offered 1939-40.) (Williams.)

D. Physical Chemistry

For Advanced Undergraduates and Graduates

Chem. 102 A y. Physical Chemistry (6)—Three lectures. Prerequisites, Chem. 6 y; Phys. 2 y; Math. 23 y.

For those taking laboratory, graduate students will elect Chem. 219 f and s (4), and undergraduates Chem. 102 B y (4).

This course aims to furnish the student with a thorough background in the laws and theories of chemistry. The gas laws, kinetic theory, liquids, solutions, elementary thermodynamics, thermochemistry, equilibrium, chemical kinetics, etc., will be discussed. (Haring.)

Chem. 102 B y. Physical Chemistry Laboratory (4)—Two laboratories. For undergraduates taking Chem. 102 A y. Prerequisite, Chem. 4 f or s.

The course consists of quantitative experiments designed to demonstrate physico-chemical principles, illustrate practical applications and acquaint the student with precision apparatus. Fee, \$7.00 per semester. (Lamb.)

Chem. 103 A y. Elements of Physical Chemistry (4)—Two lectures. Prerequisites, Chem. 1 y; Phys. 1 y; Math. 8 f and 10 s or 21 f and 22 s. Undergraduates taking this course must also register for Chem. 103 B y.

The course is designed to meet the needs of premedical students and others unable to pursue the subject farther. Accordingly such topics as solution theory, colloid chemistry, reaction rates, equilibrium, the methods for determining pH, etc., are stressed. (Lamb.)

Chem. 103 B y. Elements of Physical Chemistry Laboratory (2)—One laboratory. This course must be taken by undergraduates enrolled in Chem. 103 A y. Prerequisite, Chem. 4 f or s.

Numerous quantitative experiments illustrating the principles discussed in Chem. 103 A y are performed. Fee, \$7.00 per semester. (Lamb.)

Chem. 105 y. Elements of Chemical Thermodynamics (4)—Two lectures. Prerequisite, Chem. 102 A y.

This course is designed for Chemical Engineering majors and is less extensive than Chem. 218 y but with suitable emphasis on all pertinent topics. (Haring.)

For Graduates

Note: All courses in this group have, as prerequisites, Chem. 102 A y for lecture courses and Chem. 102 B y for laboratory courses, or their equivalents.

Chem. 212 A f, 213 A s. Colloid Chemistry (2, 2)—Two lectures.

A discussion of the effects of surface on chemical reactions with numerous practical applications. (Haring.)

Chem. 212 B f, 213 B s. Colloid Chemistry Laboratory (2, 2)—Two laboratories, which must accompany or be preceded by Chem. 212 A f, 213 A s. Fee, \$7.00 per semester. (Haring.)

Chem. 214 f, 215 s. Structure of Matter (2, 2)—Two lectures.

A study of the structure of atoms, molecules, solids and liquids. Molecular structure and related topics will be studied from the standpoints of dipole moments, Raman spectra, and infra-red spectra. (Lamb.)

Chem. 216 f. Phase Rule (2)—Two lectures.

A systematic study of heterogeneous equilibria. One, two, and three component systems will be considered, with practical applications of each. (Not given in 1939-40.) (Haring.)

Chem. 217 s. Catalysis (2)—Two lectures.

This course consists of lectures on the theory and applications of catalysis. (Not given in 1939-40.) (Haring.)

Chem. 218 f, 219 s. Reaction Kinetics (2, 2)—Two lectures.

A study of reaction velocity and mechanisms of reactions in gaseous and liquid systems, and the effect of temperature, radiation, etc., on the same. (Not given in 1939-40.) (Lamb.)

Chem. 220 A f, 221 A s. Electrochemistry (2, 2)—Two lectures.

A theoretical discussion coupled with practical applications. (Not given in 1939-40.) (Haring.)

Chem. 220 B f, 221 B s. Electrochemistry Laboratory (2, 2)—Two laboratories, which must accompany or be preceded by Chem. 220 A f, 221 A s. Fee, \$7.00 per semester. (Not given in 1939-40.) (Haring.)

Chem. 226 y. Chemical Thermodynamics (4)—Two lectures.

A study of the methods of approaching chemical problems through the laws of energy. (Haring.)

Chem. 231 f, 232 s. Physical Chemistry Laboratory (2 or 3, 2 or 3)—Two laboratories and one conference.

Students taking this course may elect six credits of lectures in Chem. 102 A y to replace the conference. Fee, \$7.00 per semester. (Lamb.)

E. Biological Chemistry

Chem. 12 A y. Elements of Organic Chemistry (4)—Two lectures.

The chemistry of carbon and its compounds in relation to biology. This course is particularly designed for students in Agriculture and Home Economics.

Chem. 12 B y. Elementary Organic Laboratory (2)—One laboratory.

A course designed to familiarize the student with the fundamental methods of the organic laboratory. The course is designed to accompany Chem. 12 A y. Fee, \$8.00 per semester.

Chem. 14 s. Chemistry of Textiles (3)—Two lectures; one laboratory. Prerequisite, Chem. 12 A y and Chem. 12 B f or s.

A study of the principal textile fibres, their chemical and mechanical structure. Chemical methods are given for identifying the various fibres and for a study of dyes and mordants. Fee, \$7.00 per semester.

For Advanced Undergraduates and Graduates

Chem. 108 f or s. General Physiological Chemistry (4)—Two lectures; two laboratories. Prerequisites, Chem. 12 A y and Chem. 12 B y or their equivalent.

This course is a study of the fundamental principles of human nutrition, the chemistry of foods, digestion, absorption, assimilation, metabolism, tissue composition, and excretion. The laboratory work consists of experiments in food analysis, salivary, gastric, pancreatic and intestinal digestion, and identification of components of blood and urine. Fee, \$8.00 per semester. (Supplee.)

Chem. 115 y. Food Analysis (4)—Two laboratories. (By special arrangement a student may take this course one semester for two hours credit) Prerequisites, Chem. 12 A y and Chem. 12 B y or their equivalent.

This course is designed to give the student experience in analytical procedures of particular benefit to workers in the food industries. Particular attention is given to the problems presented in sampling, and in applying standard methods to different types of products. Analytical determinations of value in detecting and estimating various types of decomposition are also stressed. Fee, \$8.00 per semester. (Supplee.)

For Graduates

Chem. 208 f or s. Biological Analysis (2)—Two laboratories.

A course in analytical methods of value to the student whose major field is in the biological sciences. The work is varied somewhat to fit the needs or interest of the individual student. Fee, \$8.00 per semester. (Supplee.)

Chem. 222 A f, 223 A s. Physiological Chemistry (2, 2)—Two lectures. Prerequisite, Chem. 12 A y and Chem. 12 B y or their equivalent.

An advanced course in physiological chemistry. For the first semester the course consists of lectures and assigned reading on the chemistry of the carbohydrates, fats, proteins, and enzymes. The second semester deals with digestion, absorption, metabolism, excretion, hormones, and nutrition.

(Supplee.)

Chem. 222 B f, 223 B s. Physiological Chemistry Laboratory (2, 2)—Two laboratories. Prerequisites, Chem. 4 f or s and Chem. 12 A y and 12 B y or their equivalent.

A laboratory course to accompany Chem. 222 A f, 223 s. Qualitative and quantitative food analysis; digestion, nutrition, metabolism, and respiration experiments; and quantitative analysis of the blood and urine. Fee, \$8.00 per semester.

(Supplee.)

Chem. 224 f, 225 s. Special Problems (2-4, 2-4)—Two to four laboratories. Laboratory, library, and conference work amounting to a minimum of 10 hours a week. Prerequisites, Chem. 222 A f, 223 s and consent of the instructor.

This course consists of studies of special methods, such as the separation of the fatty acids from a selected fat, the preparation of carbohydrates or amino acids, the determination of the distribution of nitrogen in a protein, or the detailed analysis of some specific type of tissue. The student will choose the particular problem to be studied with the advice of the instructor. Fee, \$8.00 per semester.

(Broughton.)

F. History of Chemistry

Chem. 121 y. The History of Chemistry (2)—One lecture. Prerequisite, Chem. 1 y and Chem. 8 y or their equivalent.

The development of chemical knowledge, and especially of the general doctrines of chemistry, from their earliest beginnings up to the present day.

(Broughton.)

G. Seminar and Research

Chem. 227 f, 228 s. Seminar (1, 1)—Required of all graduate students in chemistry.

Students are required to prepare reports on papers in the current literature. These are discussed in connection with the recent advances in the subject.

(Staff.)

Chem. 229 f or s. Research in Chemistry. The investigation of special problems and the preparation of a thesis towards an advanced degree.

(Staff.)

CLASSICAL LANGUAGES

ASSOCIATE PROFESSOR HIGHBY.

Greek

Greek 1 y. Elementary Greek (6)—Three lectures.

Drill and practice in the fundamentals of Greek grammar and the translation of simple prose.

Greek 2 y. Greek Grammar, Composition, and Translation of Parts of Xenophon and Plato (6)—Three lectures. Prerequisite, Greek 1 y or equivalent.

Selections from the New Testament, Herodotus, Plato, and Homer.

Latin

A minor is offered in Latin. The successful completion of twelve hours of work in courses higher than Latin 2 y is required. Four entrance units of Latin will also be considered as fulfilling the regular requirement of twelve credit hours prerequisite to the minor.

Latin 1 y. Elementary Latin (6)—Three lectures.

This course is intended to give a substantial and accurate knowledge of Latin grammar and syntax, together with practice in reading simple prose.

Latin 2 y. Intermediate Latin (6)—Three lectures. Prerequisites, Latin 1 y or two entrance units in Latin.

Review at outset of forms and syntax; composition. Selections from Caesar, Cicero, Ovid, and Virgil.

For Advanced Undergraduates and Graduates

Latin 101 f. Review of Latin Literature (3)—Prerequisite, Latin 2 y or four entrance credits in Latin.

Review of Latin Literature by selected readings from the origins down to the time of the late Republic. (Not offered in 1939-40.)

(Highby.)

Latin 102 s. Review of Latin Literature (3)—Prerequisite, Latin 101 f or permission of the instructor.

Review of Latin Literature continued; the age of Augustus and the early Empire, with main emphasis on Horace and Livy. (Not offered in 1939-40.)

(Highby.)

Latin 121 f. Roman Prose Writers (3)—Prerequisite, Latin 2 y completed with good academic standing or four entrance units in Latin.

Cicero's essays, Seneca, Tacitus.

(Highby.)

Latin 122 s. Roman Poetry (3)—Prerequisite, Latin 121 f or equivalent. Satires of Horace and Juvenal; Lucretius.

(Highby.)

COMPARATIVE LITERATURE

The work in Comparative Literature is offered jointly by the faculties of the Department of English and the Department of Modern Languages.

English 113 f and 114 s may be counted as Comparative Literature by students who have had Comp. Lit. 105 f and 106 s. English 124 s may also be counted as Comparative Literature.

Comp. Lit. 1 y. Outlines of the World's Literature (4)—Two lectures.

The object of the course is to acquaint students who have an interest in literary history with the principal literatures of the world. The study will be confined to the main movements and chief representatives of Greek, Latin, French, Italian, Spanish, and German. (Prah.)

Comp. Lit. 2 y. Epic Poetry in European Literature (4)—Two lectures.

The outstanding epic poems of Greek, Latin, French, Italian, Spanish, German, and Scandinavian literature will be studied with special emphasis on their interrelation, their historical and mythological background. (Not given in 1939-40.) (Prah.)

For Advanced Undergraduates and Graduates

Comp. Lit. 101 f. Introductory Survey of Comparative Literature (3)—Three lectures.

Survey of the background of European literature through study in English translations of Greek and Latin literature. Special emphasis is laid on Greek drama, along with the development of the epic, tragedy, comedy, and other typical forms of literary expression. The debt of modern literature to the ancients is discussed and illustrated. (Zucker.)

Comp. Lit. 102 s. Introductory Survey of Comparative Literature (3)—Three lectures.

Continuation of Comp. Lit. 101 f; study of medieval and modern Continental literature. (Zucker.)

Comp. Lit. 103 f. Types of World Literature (2)—Two lectures.

An historical and critical survey of the principal types of world literature, with special attention to the influence of classical myth and legend and of classical literary ideals upon English and American writers. (Harman.)

Comp. Lit. 104 s. The Old Testament as Literature (2)—Two lectures. For seniors and graduate students.

A study of the sources, development, and literary types. (Hale.)

Comp. Lit. 105 f. Romanticism in France (3)—Three lectures.

Lectures and readings in the French romantic writers from Rousseau to Baudelaire. Texts to be read in English. (Wilcox.)

Comp. Lit. 106 s. Romanticism in Germany (3)—Three lectures.

Continuation of Comp. Lit. 105 f. German literature from Buerger to Heine. The reading is done in English translations. (Prah.)

Comp. Lit. 107 f. The Faust Legend in English and German Literature (2)—Two lectures.

A study of the Faust Legend of the Middle Ages and its later treatment by Marlowe in *Dr. Faustus* and by Goethe in *Faust*. (Prah.)

Comp. Lit. 109 s. A Study of Literary Criticism (3)—Three lectures.

A survey of the major schools of criticism from Plato and Aristotle to the present day. (Murphy.)

Comp. Lit. 112 f. Ibsen (2)—Two lectures.

A study of the life and chief works of Ibsen with special emphasis on his influence on the modern drama. (Zucker.)

For Graduates

Comp. Lit. 200 s. The History of the Theatre (2)—Two lectures. Prerequisite, a wide acquaintance with modern drama and some knowledge of the Greek drama.

A detailed study of the history of the European theatre. Individual research problems will be assigned for term papers. (Hale.)

ECONOMICS†

PROFESSORS STEVENS, GRUCHY, DEVAULT, WEDEBERG; LECTURER MERRICK; ASSOCIATE PROFESSORS MARSHALL, WALKER; ASSISTANT PROFESSORS LAYTON, DANIELS, CISSEL, HAMILTON; MR. REID, MR. MULLIN.

Some of the specialized courses in the following lists may be offered only in alternate years, whenever prospective enrollments therein do not justify repeating annually. Such courses are indicated by an asterisk.

Econ. 51 y. Principles of Economics I (6)—Prerequisite, sophomore standing.

A study of the general principles of economics; production, exchange, distribution, and consumption of wealth. Lectures, discussions, and student exercises.

Econ. 57 f or s. Fundamentals of Economics (3)—Prerequisite, sophomore standing. Not open to students who have credit in Econ. 51 y, in former Econ. 3 y, or in former Econ. 5 f or s.

A study of the general principles underlying economic activity. Designed to meet the needs of special groups, such as students in engineering, home economics, agriculture, and others, who do not take the course in Principles. Special sections designed especially to meet the needs of each of these groups will be set up whenever the enrollment justifies it.

†See also related courses in Business Administration; also in Agricultural Economics, especially A. E. 1 f, 2 s, 104 s, 106 s, 109 y, 210 s, 211 f, 212 f, 213 s, 214 s, and 215 s.

For Advanced Undergraduates and Graduates

Econ. 130 f. Labor Economics (3)—Prerequisite, Econ. 51 y or 57.

Insecurity, wages and income, hours, substandard workers, industrial conflict; wage theories; the economics of collective bargaining; unionism in its structural and functional aspects; recent developments. (Marshall.)

Econ. 131 s.* Labor and Government (3)—Prerequisite, Econ. 51 y.

A study of society's efforts through legislation to improve labor conditions. State and federal laws and court decisions affecting wages, hours, working conditions, immigration, convict labor, union activities, industrial disputes, collective bargaining, and economic security. (Marshall.)

Econ. 133 f.* Industrial Relations (3)—Prerequisite, Econ. 51 y.

A study of the development and methods of organized groups in industry with reference to the settlement of labor disputes. An economic and legal analysis of labor union and employer association activities, arbitration, mediation, and conciliation; collective bargaining, trade agreements, strikes, boycotts, lockouts, company unions, employee representation, and injunctions. (Marshall.)

Econ. 136 s.* Economics of Consumption (3)—Prerequisite, Econ. 51 y or 57.

The place of the consumer in our economic system. An analysis of demand for consumer goods. The need for consumer-consciousness and a technique of consumption. Cooperative and governmental agencies for consumers. Special problems. (Marshall.)

Econ. 145 s.* Public Utilities (3)—Prerequisite, Econ. 51 y or 57.

Economic and legal characteristics of the public utility status; problems of organization, production, marketing, and finance; public regulation and alternatives.

Econ. 151 f.* Theories of Economic Reform (3)—Prerequisite, Econ. 51 y.

An investigation of some of the more important social reform movements and programs of the modern era. The course begins with an examination and evaluation of the capitalistic system, followed by an analysis of alternative types of economic control. (Marshall.)

Econ. 152 s.* Social Control of Business (3)—Prerequisite, sophomore economics and O. and M. 101 s and 102 f (or concurrent registration therein).

The reasons for and the methods of avoidance, escape, and abuse of competition as a regulating force in business. Social control as a substitute for, or as a modification of, preservation of competition. Law as an instrument of social control through administrative law and tribunals. The constitutional aspects of social control.

Econ. 153 f.* Industrial Combination (3)—Prerequisite, Econ. 51 y.

The development of industrial combinations in the United States; the causes which brought about the trust movement; trade and business methods employed by these combinations; types of big business; anti-trust legislation in this country and its effects. (Not offered in 1939-40.)

Econ. 161 f. Economics of Cooperative Organization (3)—Prerequisite, Econ. 51 y or 57. (See also O. and M. 149 f, s, or S, A. E. 103 f, and O. and M. 161.)

Analysis of the principles and practice of cooperation in economic activity from the viewpoint of effective management and public interest. Potentialities, limitations, and management problems of consumer, producer, marketing, financial, and business men's cooperatives. (Stevens.)

Econ. 191 s. Contemporary Economic Theory (3)—Prerequisite, senior or graduate standing.

A survey of recent trends in English, American and Continental economic thought, with special attention paid to the institutionalists, the welfare economists, and the mathematical economists. (Gruchy.)

For Graduates

Econ. 201 f, 202 s. Research (1-3, 1-3)—Credit in proportion to work accomplished. Prerequisite, consent of the instructor. Students must be especially qualified to pursue effectively the search to be undertaken.

Investigation or original research in problems of economics under supervision of the instructor. (Staff.)

Econ. 203 y. Seminar (4)—Prerequisite, concurrent graduate major in economics or business administration and consent of instructor.

Discussion of major problems in the field of economic theory, accounting, cooperation, or business. (Staff.)

Econ. 205 f. History of Economic Thought (3)—Prerequisite, Econ. 51 y.

A study of the development of economic thought and theories, including the ancients, the Greeks, the Romans, scholasticism, mercantilism, physiocrats, Adam Smith and contemporaries, Malthus, Ricardo, and John Stuart Mill. (Marshall.)

Econ. 206 s. Economic Theory in the Nineteenth Century (3)—Prerequisite, Econ. 205 f.

A study of the various schools of economic thought, particularly the classicists, the neo-classicists, the Austrians, and the socialists. (Marshall.)

Econ. 210 f, 211 s. Special Problems in Economic Investigation (1-3, 1-3)—Each semester credit in proportion to work accomplished.

Technique involved in economic research. Practice in drawing up schedules and programs. Individual conferences and reports. (Not offered in 1939-40.) (Stevens.)

Econ. 233 s. Problems in Industrial Relations (3)—Prerequisite, preliminary courses in the field of specialization, and permission of the instructor. The subjects selected for study may be closely allied with, but must not be the same as, the subject discussed in the student's major thesis.

(Marshall.)

Econ. 252 s. Problems in Government and Business Interrelations (3)—Prerequisite, preliminary courses in the field of specialization, and permission of the instructor. The subjects selected for study may be closely allied with, but must not be the same as, the subject discussed in the student's major thesis.

Econ. 298 f, 299 s. Problems in Economics of Cooperation (1-3, 1-3)—Prerequisite, six semester hours in accounting, three in finance, three in statistics, eight in economics, and three in cooperative theory.

Problems may involve practical work with the National Cooperative Council and other Washington (D. C.) or Maryland cooperative organizations. The subjects selected for investigation may be closely allied with, but must not be the same as, the subject discussed in the student's major thesis.

(Stevens.)

EDUCATION

PROFESSORS SMALL, LONG, MACKERT, BROWN, POWERS, McNAUGHTON, DREW;
ASSOCIATE PROFESSORS BRECHBILL; ASSISTANT PROFESSOR GALLINGTON;
MRS. BARTON, MISS CLOUGH, MISS SMITH.

A. History and Principles

Ed. 2 f, 3 s. Introduction to Teaching (2, 2)—Required of sophomores in Education.

A finding course, with the purpose of assisting students to decide whether they have qualities requisite to success in teaching. Study of the physical qualifications, personality traits, personal habits, use of English, speech, and habits of work; and of the nature of the teacher's work.

Ed. 5 f or s. Technic of Teaching (2)—Required of juniors in Education. Prerequisite, Psych. 10 f.

Educational objectives and outcomes of teaching; types of lessons; problem, project, and unit; measuring results and marking; socialization and directed study; classroom management.

Ed. 6 s, 7 f. Observation of Teaching (1, 1)—Prerequisite, Psych. 10 f.

Twenty hours of directed observation. Reports, conferences, and criticisms.

For Advanced Undergraduates and Graduates

Ed. 100 f. The Development of American Educational Institutions (2)—Two lectures.

The course traces the origins and development of the concepts and practices which now characterize contemporary American education. The elementary and secondary schools, teacher training, and higher education will be considered, as well as the emergence of the junior high school and the junior college.

(Long.)

Ed. 101 f. History of Education (2)—Greco-Roman, Medieval, and Early Modern Education.

A survey of the evolution in Europe of Educational theory, institutions, and practices from the Greco-Roman era to 1750.

(Long.)

Ed. 102 s. History of Modern Education (2)—Continuation of Ed. 101 f.

The survey of the modern period is directed to the creators of modern education and the bases on which modern educational systems have been founded in various countries.

(Long.)

Ed. 103 s. The High School (3)—Prerequisite, senior standing.

The secondary school population, its nature and needs; the school as an instrument of society; relation of the secondary school to other schools; aims of secondary education; curriculum and methods in relation to aims; extra-curricular activities; guidance and placement; the school's opportunities for service to its community; teacher certification and employment in Maryland and the District of Columbia.

(Brechbill.)

Ed. 105 f. Educational Measurements (3)—Three lectures. Prerequisite, consent of instructor.

A study of tests and examinations with emphasis upon their construction and use. Types of tests; purposes of testing; elementary statistical concepts, and processes used in summarizing and analyzing test results; school marks.

(Brechbill.)

Ed. 107 f or s. Comparative Education (2)—Two lectures.

The forces that cause different systems of education, and the characteristic differences in the educational policies and practices in various countries are studied in this course. The major emphasis is upon certain European systems.

(Long.)

Ed. 110 f. The Junior High School (3)—Prerequisite, senior standing.

Definition and history of the junior high school; physical, mental, and social traits of the junior high school pupil; purposes, functions, and limitations; types of reorganized schools; articulation with lower and higher schools; duties and responsibilities of the administrative and teaching staff; the program of studies; exploratory courses; departmentalization; pro-

visions for individual differences; the guidance program; significant problems and challenges implied in present trends. (Powers.)

Ed. 111 f or s. Lives of Scientists (2)—Two lectures.

A study of the major achievements and interesting incidents in the lives of the pioneers of science. Though designed especially to provide enrichment material for the use of high school teachers, the course is of general cultural value. (Brechtbill.)

Ed. 193 f. Visual Education (2).

Visual impressions in their relation to learning; investigations into the effectiveness of instruction by visual means; projection apparatus, its cost and operation; slides, film strips, and films; physical principles underlying projection; the integration of visual materials with organized courses of study; means of utilizing commercial moving pictures as an aid in realizing the aims of the school. (Brechtbill.)

See also *Agricultural Education and Rural Life*, p. 232.

For Graduates

Ed. 200 f. Organization and Administration of Public Education (2).

This course deals objectively with the organization, administration, curricula, and present status of public education in the United States. (Small.)

Ed. 201 s. Educational Interpretations (2).

In this course a study is made of the social, economic, political, and cultural environment in which American educational institutions and policies have developed; and of the function of education in environmental change. (Small.)

Ed. 202 f. The Organization and Administration of Secondary Schools (2)—Two lectures.

This course will consider the principal's duties in relation to organization of secondary school units; selecting and assigning the staff; schedule making; school records and accounting systems; organization of guidance and extra-curricular activities; testing and the marking system; public relations and publicity; professional improvement. (Powers.)

Ed. 203 s. High School Supervision (2)—Two lectures.

This course will deal with the nature and functions of supervision in a modern school program; recent trends in supervisory theory and practice; teacher participation in the determination of policies; planning of supervisory programs; appraisal of teaching methods; curriculum reorganization and other direct and indirect means for the improvement of instruction. (Powers.)

Ed. 214 f, 215 s. Seminar in Secondary Education (2-3, 2-3).

A study of pressing problems with which secondary education is faced at the present time. (Powers.)

Ed. 216 f. Seminar in Youth Problems (2)—Two lectures.

The major topics presented will concern the present status of youth; problems of equalizing educational opportunities; finding employment for youth; establishing economic security; guidance of youth; preparation for occupational efficiency; reorganization of general secondary education; training for constructive use of leisure; health education; implications for citizenship training; and community planning of youth programs. (Powers.)

Ed. 217 s. Research Problems in Youth Education (2)—Two lectures. For students who have had Ed. 216 f or equivalent preparation.

Each student will be required to select some one problem for special investigation. A thesis will be required before credit for the course will be allowed. (Powers.)

Ed. 250 y. Seminar in Education (2-4).

In 1939-40, the seminar will deal with two subjects. First semester: educational biography—chief contributors to theory and practice of American education. Second semester: the major educational foundations and associations. (Small and Staff.)

Note: See also *Phys. Ed. 201 y*, page 288.

B. Educational Psychology

(For full descriptions of these courses, see "Psychology", p. 348.)

Ed. Psych. 10 f or s. Educational Psychology (3).

Ed. Psych. 110 f or s. Advanced Educational Psychology (3).

Ed. Psych. 125 f. Child Psychology (3).

Ed. Psych. 130 f or s. Mental Hygiene (3).

Ed. Psych. 210 y. Seminar in Educational Psychology (6).

C. Methods in High School Subjects

For Advanced Undergraduates and Graduates

Graduate credit for courses in this section will be given only by special permission of the College of Education.

Ed. 120 s. English in the High School (2). Prerequisite, Psych. 10.

Objectives in English in the different types of high schools; selection and organization of subject matter in terms of modern practice and group needs; evaluation of texts and references; bibliographies; methods of procedure and types of lessons; the use of auxiliary materials; lesson plans; measuring results. (Miss Smith.)

Ed. 122 s. The Social Studies in the High School (2). Prerequisite, Psych. 10.

Objectives and present trends in the social studies; texts and bibliographies; methods of procedure and types of lessons; the use of auxiliary materials; lesson plans; measuring results. (Clough.)

Ed. 124 s. Modern Language in the High School (2). Prerequisite, Psych. 10.

Objectives of modern language teaching in the high school; selection and organization of subject matter in relation to modern practice and group needs; evaluation of texts and references; bibliographies; methods of procedure and types of lessons; lesson plans; special devices; measuring results.

Ed. 126 s. Science in the High School (2). Prerequisite, Psych. 10.

Objectives of science teaching, their relation to the general objectives of secondary education; application of the principles of psychology and of teaching to the science class-room situation; selection and organization of subject matter; history, trends, and status; textbooks, reference works, and laboratory equipment; technic of class room and laboratory; measurement, standardized tests; professional organizations and literature. (Brechtbill.)

Ed. 128 s. Mathematics in the High School (2). Prerequisite, Psych. 10.

Objectives; the place of mathematics in secondary education; content and construction of courses; recent trends; textbooks and equipment; methods of instruction; measurement and standardized tests; professional organizations and literature. (Brechtbill.)

***Ed. 130 f. High School Course of Study—Composition (2).**

Content and organization of the materials of written and oral composition in the junior and senior high school. (Miss Smith.)

***Ed. 131 s. High School Course of Study—Literature (2).**

Content and organization of the literature course in the junior and senior high school. (Miss Smith.)

Ed. 135 f. High School Course of Study—Geometry (2).

Content and organization of intuitive and demonstrative geometry. Methods of analysis and problem solving. (Brechtbill.)

Ed. 136 f. High School Course of Study—Biology (2).

Content and organization of high school biology. (Brechtbill.)

Ed. 137 s. High School Course of Study—General Science (2).

Content and organization of General Science in the junior and senior high school. (Brechtbill.)

Ed. 138 f. High School Course of Study—Social Studies (2).

Content and organization of the materials of the social studies in the junior and senior high school.

*Students whose major is English should choose one or both of these courses.

Ed. 139 f or s. Supervised Teaching of High School Subjects (1-2). Prerequisites, Psych. 10, Ed. 5 s, Ed. 6 s, and the appropriate special methods.

Five periods of observation and participation followed by 20 periods of actual teaching for two semester hours of credit and by 10 periods of actual teaching for one semester hour of credit. Two semester hours are required. The teaching may all be done in one subject or may be done in two subjects.

Students desiring more than this amount must obtain special permission from the Dean of the College of Education, and may be required to pay the actual cost of such additional teaching.

Application for registration in this course must be made on the proper form before the beginning of the school year in which the teaching is to be done. Students taking this course should arrange their schedules in advance so as to avoid serious time conflicts with other courses. (Staff.)

E. English.

S. S. Social Studies.

L. Modern Language.

Sc. Science.

M. Mathematics.

P. E. Physical Education.

C. Commercial Subjects.

I. Industrial Education.

R. Recreation.

***Ed. 142 f. Physical Education in the High School (2).**—Prerequisites, Psych. 10, and Ed. 5s.

Objectives of physical education in high school situations; materials and procedures in relation to lesson planning, handling classes, physical examinations, discipline, records, grading, program, and the like.

***Ed. 143 f. Methods in Recreation (2).**—Two lectures.

Major functions of recreation; selection and organization of subject matter; methods of instruction; planning, directing, and supervising projects for worthwhile achievements will be considered.

***Ed. 145 s. Teaching Health (2).**—Two lectures.

A course required of all seniors in physical education and recreation, which meets twice a week for one semester. Prerequisites, Phys. Ed. 11 f, Phys. Ed. 13 f, and Phys. Ed. 16 s.

Philosophy, aims, objectives, problems, materials, methods and procedures for teaching health.

Ed. 150 f, 151 s. Commercial Subjects in the High School (1-3, 1-3).—Prerequisite, Psych. 10.

Aims and methods for the teaching of shorthand, typewriting, and book-keeping in high schools.

*Open to men and women.

HOME ECONOMICS EDUCATION

PROFESSOR MCNAUGHTON

H. E. Ed. 5 s. **Technic of Teaching (2)**.—Required of juniors in Home Economics Education. Prerequisite, Psych. 10.

Philosophy of home economics education; survey of the needs of the community; analysis of the characteristics and interests of the high school girl; objectives for teaching home economics in high school; construction of units; use of problem, discussion, demonstration, and laboratory methods; selection of illustrative material; the home project. (McNaughton.)

H. E. Ed. 6 s. **Observation of Teaching (1)**.—Twenty hours of directed observations.

Reports, conferences, and criticisms. (McNaughton.)

For Advanced Undergraduates and Graduates

H. E. Ed. 102 f or s. **Child Study (3)**.—Prerequisite, Psych. 10.

The study of child development in relation to the physical, mental, and emotional phases of growth; study of textbooks and magazines; adaptation of material to teaching of child care in high school; observation and participation in University Nursery School. (McNaughton.)

H. E. Ed. 103 f or s. **Teaching Secondary Vocational Home Economics: Methods and Practice (3)**.—Prerequisite, H. E. Ed. 5 s.

Observation and teaching in a vocational department of a Maryland high school or in a junior high school in Washington. Organization of units, lesson plans, field trips; planning and supervision of home projects. After completing the teaching unit the student observes in home economics departments other than one in which she has taught. (McNaughton.)

H. E. Ed. 104 s. **Nursery School Techniques (2-3)**.—Prerequisite, Psych. 10—Open to seniors. Designed for Nursery School teachers.

Philosophy of preschool education; principles of learning; routines; study of children's interests and activities; observation and teaching in the nursery school. (McNaughton.)

H. E. Ed. 105 f or s. **Special Problems in Child Study (3)**.—Open to seniors. Prerequisite, H. E. Ed. 102 f.

Methods and practice in nursery school work in University Nursery School; making of particular studies related to the mental, emotional, or physical development of preschool children. (McNaughton.)

H. E. Ed. 106 f, 107 s. **Problems in Teaching Home Economics (1, 1)**.

Reports of units taught; analysis of the units in the State course of study; study of various methods for organization of class period; analysis of text books; evaluation of illustrative material. (McNaughton.)

For Graduates

H. E. Ed. 201 f or s. **Advanced Methods of Teaching Home Economics (2-4)**.

Study of social trends as applied to the teaching of home economics. (McNaughton.)

H. E. Ed. 250 y. **Seminar in Home Economics Education (2-4)**.—(See Ed. 250 y.)

(McNaughton.)

INDUSTRIAL EDUCATION

For each semester hour of credit for shop and drawing courses two or three periods of lecture and practice are scheduled depending upon the specific needs of the course.

Ind. Ed. 1 f, 2 s. **Mechanical Drawing (2, 2)**.

The basic theory and practices in the teaching of Mechanical Drawing involved in the projection of objects, the making of working drawings, pattern layouts, tracing and blue-printing, and the principles in machine design including the study of conventions and the sketching of machine parts.

Ind. Ed. 3 f. **Elementary Woodworking (3)**.

This course deals with the use and care of woodworking tools and materials in bench practice involving the principles of joinery, including the application of woodworking finishes. Fee, \$4.00.

Ind. Ed. 4 s. **Advanced Woodworking (3)**.

Practice in the application of design and construction of projects in wood involving the use of woodworking machinery suitable for the high school shop. It includes furniture construction and machine cabinet work, with some emphasis on manufacturing practices. Basic wood turning and a working knowledge of wood pattern making is taught, and practice given in coloring, finishing, and painting wood. Fee, \$4.00.

Ind. Ed. 5 f. **Sheet Metal Work (2)**.

A general course covering effective ways of teaching the fundamental details of sheet metal work. Information is given on materials, tools, and processes. Practice is given in soldering, the laying out of patterns, and the making of a group of elementary graded problems which involve items of practical use. Fee, \$2.50.

Ind. Ed. 6s. **Art Metal Work (2)**.

This course follows the course in Sheet Metal. It deals with the design, construction, and methods of teaching art metal work. Projects include brass, copper, silversmithing, and jewelry work. Fee, \$2.50.

Ind. Ed. 7 y. Mechanical Drawing (2).

Advanced practice and teaching methods based upon Mechanical Drawing courses of the freshman year.

Ind. Ed. 8 y. Electricity (4).

The essentials of electricity in industrial and other life situations. Units of work are completed in house and signal wiring, power wiring, auto-ignition, and the fundamental principles involved in direct current machinery and alternating current machinery. It provides teachers of electricity with sufficient material and data to cope with the problem of electrical projects for high school class construction. Fee, \$2.50 per semester.

Ind. Ed. 9 s. Elementary Machine Shop (2).

This course includes bench work, tool grinding, and elementary practice on the lathe, shaper, and drill press. Effective teaching methods are emphasized. Fee, \$2.50.

Ind. Ed. 10 f. Cold Metal Work (2).

This course is concerned with the development of fundamental skills, teaching methods, and knowledge involved in the design and construction of projects from band iron and other cold metals. Fee, \$2.50.

Ind. Ed. 11 f. Foundry (2).

Laboratory practice and instructional methods in bench and floor moulding and elementary core making. Theory and principles covering foundry materials, tools, and appliances are presented, including consideration of mixtures for casting gray iron, brass, bronze, and aluminum. Fee, \$2.50.

Ind. Ed. 13 f. Advanced Machine Shop (2).

Laboratory experiences in the fundamental operations on lathe, shaper, drill press, and other machine shop equipment. Special attention to effective methods of instruction in Machine Shop Practice. Fee, \$2.50.

For Advanced Undergraduates

Ind. Ed. 106 y. Essentials of Design (2)—Prerequisites, Ind. Ed. 1 f, 2 s, and 7 y.

A study of the basic principles of design and practice in their application to the construction of high school shop projects. It presents knowledge and develops abilities in the art elements of line, mass, color, and design, and employs laboratory activities in freehand and mechanical drawing, tracing, and blueprinting. (Gallington.)

Ind. Ed. 162 s. Industrial Education in the High School (2)—Prerequisite, Psych. 10. (Brown.)

Major functions and specific aims of industrial education; their relation to the general objectives of the junior and senior high schools; selection and organization of subject matter in terms of modern practices and needs; methods of instruction; expected outcomes; measuring results; professional standards.

Ind. Ed. 163 f. Occupations, Guidance, and Placement (2).

Open to juniors and seniors.

Survey of the educational and vocational guidance movement; typical public school means and methods; use of occupational information; duties of the counselor; organization and cooperative relationships as affecting modern youth. (Brown.)

Ind. Ed. 164 s. Shop Organization and Management (2).

This course recapitulates methods of organization and management for teaching shop subjects. It includes organization and management of pupils; daily programs; projects; pupils' progress charts; selection, location, and care of tools, machines, equipment, and supplies; records and reports; and good school housekeeping. Opportunity is provided for visits to industrial plants as a basis for more practical planning of shop instruction and management. (Brown.)

Ind. Ed. 165 f and 166 s. Evolution of Modern Industry (4).

The origin and development of our modern industrial system. A review of the industrial progress of man through the various stages of civilization down to modern factory organization and practice, as related to Industrial Education.

First semester (165 f) is a survey of industrial development up to and including the Industrial Revolution. The second semester (166 s) covers the period from the Industrial Revolution to the present time. (Brown.)

Ind. Ed. 167 y. General Shop (2).

Elective to juniors and seniors. A general survey course designed to meet teacher training needs in organizing and administering a high school General Shop course. Special teaching methods are emphasized as students are rotated through skill and knowledge developing activities in mechanical drawing, electricity, woodworking, and general metal working. Fee, \$2.50 per semester. (Gallington.)

PHYSICAL EDUCATION

Physical Education and Recreation for Men and Women

A. PROFESSOR MACKERT; MR. McCAW, MR. ENGLISH.

B. PROFESSOR DREW; ASSISTANT PROFESSOR MIDDLETON; DR. KARPELES.

Note: A special uniform is required of all those enrolled in any physical activities course.

Phys. Ed. 1 y. Physical Activities I (2).

An activities course for male freshmen, which meets three periods a week throughout the year. The activities taught are soccer, touch football, basketball, volleyball, soft baseball, track, and natural gymnastics.

Phys. Ed. 2 y. Personal Hygiene (1).

Freshman course for women.

This course consists of instruction in hygiene one period a week throughout the year. The health ideal and its attainments, care of the body by diet, exercise, sleep, bathing, etc., and social hygiene.

Phys. Ed. 3 y. Physical Activities II (4).

An activities course for sophomore men, which meets three periods a week throughout the year. The activities taught are the team sports of the freshman year, and individual sports which include fencing, wrestling, tumbling, boxing, ping pong, horseshoe pitching, handball, golf, tennis, and badminton.

Phys. Ed. 4 y. Physical Activities (1).

Freshman course for women.

Meets twice each week throughout the year. The following phases of physical education are considered:** Tennis, hockey, soccer, basketball, volleyball, badminton, soft ball, archery, table tennis, shuffleboard, folk dancing and ballroom dancing.

Phys. Ed. 5 y. Athletics: Men (4).

An activities course required of male freshmen in physical education or recreation, which meets five times a week throughout the year. Two periods a week are devoted to training in activities for squad leadership, and three periods a week to participation in the activities of the general physical education program.

Phys. Ed. 6 y. Community Hygiene (2).

Sophomore course for women.

Continuation of the freshman course. The work in hygiene includes the elements of physiology, the elements of home, school, and community hygiene, and a continuation of social hygiene.

Phys. Ed. 8 y. Physical Activities (2).

Sophomore course for women. Meets twice each week.

Continuation of the work of the freshman year. With the permission of the head of the department, a student may be permitted to substitute activity courses offered in the major curriculum.

Phys. Ed. 10 y. Fundamentals of Rhythm and Dance (2).

Required of freshmen women whose major is Physical Education and open to others with the permission of the instructor.

This course includes practice in elementary techniques and considers the basic principles of time, force, and space underlying all dance. Opportunity is given for creating short dances in respect to form and content.

**An individual activity program suited to need is arranged upon the recommendation of the University physician.

***Phys. Ed. 11 f. Hygiene (2).**

A course required of all sophomores in physical education or recreation which meets twice a week for one semester.

This course surveys the health practices of college students and their community in the light of standard criteria, to the end that the individual student may increase his ability to adapt himself to conditions of finer living.

Phys. Ed. 12 y. Athletics I: Women (4).

Required of freshmen women whose major is Physical Education.

Meets twice each week plus two hours arranged in which the student acts as assistant in a section of Phys. Ed. 2y. The following sports are considered: In the first semester, hockey, soccer, basketball, badminton, and volleyball; in the second semester, bowling, tennis, golf, and soft ball.

***Phys. Ed. 13 f. Prevention of Accidents (1).**

A course required of all juniors in physical education or recreation, which meets once a week for one semester. Observations and reports are required.

This course is designed to help the professional student detect accident hazards in physical activities, and to train him in safety precautions to prevent accidents.

Phys. Ed. 14 y. Modern Dance (2).—Prerequisite, Phys. Ed. 10 y or equivalent.

Required of sophomore women whose major is Physical Education and open to others with the permission of the instructor.

This course includes practice in techniques of modern dance and a study of the contemporary field. Opportunity is given to create dance patterns for group or individual in respect to form and content.

Phys. Ed. 15 y. Gymnastics (2).

An activities course required of sophomore men in physical education or recreation, which meets three periods a week throughout the year. The activities taught are light and heavy gymnastics, including marching, calisthenics, tumbling, pyramid building, and exercise on apparatus.

***Phys. Ed. 16 s. First Aid (1).**

Required of junior men and women whose major is Physical Education or Recreation. Meets twice each week.

The course presents the fundamentals necessary for offering aid in accidents and injuries until medical attention can be secured. Practical work is required of all students.

Phys. Ed. 17 y. Advanced Gymnastics (2).

An activities course for juniors and seniors which meets three periods a week throughout the year. Prerequisite, Phys. Ed. 15 y or the equivalent.

This course is a continuation of Phys. Ed. 15 y. Advanced work in tumbling, apparatus and pyramid building.

***Phys. Ed. 20 s. Survey of Physical Education (2).**

A course required of sophomore men and women whose major is Physical Education or Recreation. Meets twice each week.

This course offers an introduction to Physical Education through a study of historical and contemporary work in this field. It includes a survey of the possibilities of the profession.

Phys. Ed. 22 y. Athletics II: Women (4).

Required of sophomore women whose major is Physical Education.

This course is a continuation of Phys. Ed. 12 y.

***Phys. Ed. 26 y. Ballroom Dancing (2).**

Required of junior men and women whose major is Physical Education or Recreation and open to others with the permission of the instructor. Meets twice each week.

The course offers opportunity for the learning of the fundamental ballroom dance steps as well as the more modern routines. Attention is given to ballroom etiquette and the planning of dance parties.

***Phys. Ed. 28 f. Tap (1).**

Required of junior women whose major is Physical Education or Recreation and open to others with the permission of the instructor. Meets twice each week.

This course includes suitable teaching material for school or recreation groups.

***Phys. Ed. 30 s. Folk Dancing (1).**

Required of junior women whose major is Physical Education or Recreation and open to others with the permission of the instructor. Meets twice each week.

The course includes historical and contemporary dances, festivals, and customs of various countries as well as the costume appropriate for each.

***Phys. Ed. 52 y. Games and Stunts (2).**

Required of junior men and women whose major is Physical Education or Recreation and open to others with the permission of the instructor. Meets twice each week.

The course presents co-educational and co-recreational activities suitable for school, club, and recreation groups. Games and stunts for contests, picnics, school parties, and other social gatherings are considered.

For Advanced Undergraduates

Phys. Ed. 113 y. Coaching and Officiating: Men (2).

A course required of junior men in Physical Education or Recreation, which meets once a week throughout the year. Prerequisite, two years of successful intramural participation.

*Open to men and women.

Problems of coaching and officiating in intramural play and high school athletics. Participation in the intramural program at the University, or in nearby schools, is a requirement of the course.

Phys. Ed. 114 y. Coaching and Officiating: Women (2).—Prerequisites, Phys. Ed. 12 y and 16 y.

Required of senior women whose major is Physical Education. Meets twice each week.

The student is given the opportunity to coach and officiate under supervision in the intramural program on the campus as well as to officiate in the schools in Washington, D. C., and Maryland. With the cooperation of the teachers in nearby schools the students plan and administer invitational sports days in the respective schools.

Phys. Ed. 119 y. Physical Education Practice (2).

A practical course for senior men in Physical Education or Recreation. Prerequisite, Phys. Ed. 113 y or the equivalent.

The aim of this course is to provide students with opportunities to assist in teaching, coaching, and officiating in the schools of Maryland, and the athletic tournaments conducted by these schools through the State Department of Education. The equivalent of three hours of practice is required each school week throughout the year. Individual conferences will be arranged in order that students may discuss with the instructor the problems that arise for them, and the class will meet occasionally to pool experiences.

***Phys. Ed. 125 f. Physiology of Exercise (2).**

A course required of all juniors in Physical Education or Recreation, which meets twice a week for one semester.

This course presents the background of science for the workings of the human body from the standpoint of power-building and acquisition of skills.

***Phys. Ed. 131 f. Boys' and Girls' Clubs (3).**

A course required of juniors electing the curriculum in Recreation, which meets twice a week. Twenty directed observations are a requirement of the course.

Sponsoring organizations of boys' and girls' clubs; how clubs are organized; support of clubs; program planning and administration will be considered.

***Phys. Ed. 132 s. Theory and Function of Play (2).**

Required of junior men and women whose major is Physical Education or Recreation. Meets twice each week.

The psychology of action, the uses of play, the types and organization of play activities and the management of play space are considered in this course.

*Open to men and women.

***Phys. Ed. 133 s. Playground Management (3).**

A course required of juniors electing the curriculum in Recreation, which meets twice a week. Twenty directed observations are a requirement of the course.

The playground as a laboratory for the classroom; programs and problems of the playground; materials, methods, and supervision will be discussed.

***Phys. Ed. 135 y. Leadership in Recreation (4).**

A course required of all seniors in Physical Education or Recreation, which meets twice a week throughout the year. Prerequisites, Phys. Ed. 113 y or 114 y, and three years of successful participation in intramural athletics or the equivalent.

The purpose of this course is to study the various aspects of character guidance through leadership in physical activities. Participation in planning, supervising, and directing the University program of intramural activities, or an equivalent situation, is a requirement of the course.

***Phys. Ed. 137 f. Community Recreation (3).**

A course required of seniors electing the curriculum in Recreation, which meets twice a week. Twenty directed participations are required.

A comprehensive study of various types of socialized communities in terms of recreational projects. The church, the home, and the school as factors in community recreation will be studied.

For Graduates

***Phys. Ed. 201 f or s. Administration of Health and Physical Education (3).**

This course is designed to aid in solving the multitude of problems that arise in the administration of health and physical education in public schools. An attempt will be made to set up standards for evaluating the effectiveness of programs of health and physical education. (Mackert.)

ENGINEERING

PROFESSORS STEINBERG, CREESE, HUFF, YOUNGER; LECTURERS DILL, HALL, KEAR; ASSOCIATE PROFESSORS HODGINS, HUCKERT; ASSISTANT PROFESSORS HOSHALL, PYLE, ALLEN, MACHWART, ERNST, LANING, GREEN; MR. LINDAHL, MR. LOWE, MR. MOORE.

Chemical Engineering

For Advanced Undergraduates and Graduates

Ch. E. 102 s. Water, Fuels, and Lubricants (4)—Two lectures; two laboratories. Prerequisites, Chem. 8 A y and 8 B y; Phys. 2 y.

Laboratory work consists of exercises in the usual control methods for testing water, fuels, and lubricants, and some related engineering materials. Fee, laboratory \$8.00.

*Open to men and women.

Ch. E. 103 y. Elements of Chemical Engineering (6)—Three lectures. Prerequisites, Chem. 8 A y and 8 B y; Phys. 2 y.*

Theoretical discussion of general underlying philosophy and methods in chemical engineering, such as presentation of data, material balances, and heat balances. Illustrated by consideration of typical problems and processes.

Ch. E. 104 y. Chemical Engineering Seminar (2)—Required of all students in chemical engineering.

Students prepare reports on current problems in chemical engineering and participate in the discussion of such reports.

Ch. E. 105 y. Advanced Unit Operations (10)—Two lectures; three laboratories. Prerequisite, Ch. E. 103 y.

Advanced theoretical treatment of fluid flow, heat flow, evaporation, humidity, distillation, absorption scrubbing, and analogous unit operations typical of chemical engineering. Problems and laboratory operation of small scale semi-commercial type of equipment. A comprehensive problem involving theory and laboratory operations is included to illustrate the development of a plant design problem that requires the utilization of a number of the fundamental topics. Fee, \$8.00 per semester.

Ch. E. 106 s. Minor Problems (13)—Prerequisites, completion of third year chemical engineering course or permission of department of chemical engineering.

Original work on a special problem assigned to each student, including preparation of a complete report covering the study. Fee, \$8.00.

Ch. E. 107 y. Fuels and their Utilization (4)—Two lectures. Prerequisite, completion of third year chemical engineering course or permission of department of chemical engineering.

A study of the sources of solid, liquid, and gaseous fuels, their economic conversion, distribution, and utilization.

Ch. E. 108 y. Chemical Technology (4)—Two lectures. Prerequisite, Ch. E. 103 y. Also open to advanced students in chemistry.

A study of the principal chemical industries. Plant inspections, trips, reports, and problems.

For Graduates

Ch. E. 201 y. Graduate Unit Operations (10 or more)—Prerequisite, permission of department of chemical engineering.

Advanced theoretical treatment of typical unit operations in chemical engineering. Problems. Laboratory operation of small scale semi-commercial type equipment with supplementary reading, conferences, and reports. Fee, \$8.00 per semester.

*Students in Food Technology may meet this prerequisite by offering Phys. 1y.

Ch. E. 202 s. Gas Analysis (3)—One lecture; two laboratories. Prerequisite, permission of department of chemical engineering.

Quantitative determination of common gases, fuel gases, gaseous vapors, and important gaseous impurities. Problems. Fee: \$7.

Ch. E. 207 A f, 208 A s. Plant Design Studies (3, 3)—Three lectures.

An examination of the fundamentals entering into the selection of processes, the specifications for and choice and location of equipment and plant sites. Problems.

Ch. E. 207 B f, 208 B s. Plant Design Studies (2, 2)—Six hours of laboratory work which may be elected to accompany or be preceded by Ch. E. 207 A and 208 A. Fee: \$8.00 per semester.

Ch. E. 209 y. Gaseous Fuels (4)—Two lectures. Prerequisite, permission of department of chemical engineering.

An advanced treatment of some of the underlying scientific principles involved in the production, transmission and utilization of gaseous fuels. Problem in the design and selection of equipment.

Seminar and Research

Ch. E. 203 f and 204 s. Graduate Seminar (2)—Required of all graduate students in chemical engineering.

Students prepare reports on current problems in chemical engineering, and participate in the discussion of such reports.

Ch. E. 205 f or 206 s. Research in Chemical Engineering.

The investigation of special problems and the preparation of a thesis in partial fulfillment of the requirements of an advanced degree. Fee: \$8 per semester.

Civil Engineering

C. E. 101 s. Hydraulics (4)—Three lectures; one laboratory. Prerequisite, Mech. 101 f. Required of juniors in civil engineering.

Hydrostatic pressures on tanks, dams, and pipes. Flow through orifices, nozzles, pipe lines, open channels, and weirs. Use of Reynold's number. Measurement of water. Elementary hydrodynamics. (Ernst.)

C. E. 102 s. Hydraulics (3)—Two lectures; one laboratory. Prerequisite, Mech. 101 f or Mech. 102 f. Required of juniors in electrical and mechanical engineering.

A shorter course than C. E. 101 s, with emphasis on water wheels, turbines, and centrifugal pumps. (Lindahl.)

C. E. 103 f. Curves and Earthwork (3)—Two lectures; one laboratory. Prerequisite, Surv. 2 y. Required of juniors in civil engineering.

Computation and field work for simple, compound, and reversed circular curves; easement curves; vertical and horizontal parabolic curves. Analysis of turnouts and computation of earthwork, including haul and mass diagram. (Allen.)

C. E. 104 s. Theory of Structures (5)—Four lectures; one laboratory. Taken concurrently with Mech. 101 f. Required of juniors in civil engineering.

Analytical and graphical determination of dead and live load stresses in framed structures. Influence lines for reactions, shears, moments, and stresses. Analysis of lateral bracing systems. Elements of slope and deflection; rigid frames. The design of steel, timber, and reinforced concrete members. (Allen.)

C. E. 105 f. Elements of Highways (3)—Two lectures; one laboratory. Prerequisite, Mech. 101 f. Required of seniors in civil engineering.

Location, construction, and maintenance of roads and pavements. Highway contracts and specifications, estimates of cost, highway economics. The course includes, in addition to lecture and classroom work, field inspection trips. (Steinberg.)

C. E. 106 y. Concrete Design (7)—Three lectures, one laboratory first semester; two lectures, one laboratory second semester. Prerequisite, C. E. 104 s. Required of seniors in civil engineering.

A continuation of C. E. 104 s, with special application to the design and detailing of plain and reinforced concrete structures, which include slabs, columns, footings, beam bridges, arches, retaining walls, and dams. Applications of slope-deflection and moment distribution theories and rigid frames. (Allen.)

C. E. 107 y. Structural Design (7)—Three lectures, one laboratory first semester; two lectures, one laboratory second semester. Prerequisite, C. E. 104 s. Required of seniors in civil engineering.

A continuation of C. E. 104 s, with special application to the design and detailing of structural steel sections, members and their connections, for roof trusses, plate girders, highway and railway bridges, buildings, bracing systems, and grillage foundations. (Allen.)

C. E. 108 y. Municipal Sanitation (6)—Two lectures; one laboratory. Prerequisite, C. E. 101 s. Required of seniors in civil engineering.

Methods of estimating consumption and designing water supply and sewerage systems. (Hall.)

C. E. 109 y. Thesis (3)—One laboratory first semester; one lecture, one laboratory second semester. Required of seniors in civil engineering.

The student selects, with faculty approval, a subject in civil engineering design or research. He makes such field or laboratory studies as may be needed. Weekly progress reports are required, and frequent conferences are held with the member of the faculty to whom the student is assigned for advice. A written report, including an annotated bibliography, is required to complete the thesis. (Steinberg and Staff.)

C. E. 110 s. Soils and Foundations (3)—Two lectures; one laboratory. Prerequisite, C. E. 104 s. Required of seniors in civil engineering.

A study of the properties and behavior of soil as an engineering material. Applications to the methods of constructing foundations for highways, bridges, buildings, and other structures. (Steinberg, Lowe.)

Drawing

Dr. 1 f. Engineering Drawing (2)—Two laboratories. Required of freshmen in engineering.

Lettering, use of instruments, orthographic projection, technical sketches, dimensioning. Drawing from memory; drawing from description; inking, tracing, blueprinting, isometric and oblique projection and sections.

Dr. 2 f or s. Descriptive Geometry (2)—Two laboratories. Prerequisite, Dr. 1 f. Required of freshmen in engineering.

Orthographic projection as applied to the solution of space problems relating to the point, line, and plane. Intersection of planes with solids; development. Applications to practical problems in engineering drafting.

Dr. 3 f or s. Descriptive Geometry (2)—Two laboratories. Prerequisite, Dr. 2 f or s. Required of sophomores in civil, electrical, and mechanical engineering.

Continuation of Dr. 2, including curves, plane and space, generation of surfaces, tangent planes, intersection and development of curved surfaces. Shades, shadows, and perspective. Applications to practical problems in engineering drafting.

Dr. 6 y. Mechanical Drawing (2)—One laboratory. Open to non-engineering students.

Lettering, sketching, and working drawings of machines; including conventions, tracing, isometric and cabinet projections, and blueprinting.

Electrical Engineering

E. E. 1 s. Elements of Electrical Engineering (3)—Two lectures; one laboratory. Taken concurrently with Math. 23 y and Phys. 2 y. Required of sophomores in electrical engineering.

Principles involved in flow of direct currents in conductors; current and voltage relations in simple circuits; magnetism and magnetic circuits; electromagnetic induction, dielectric circuits and condensers.

E. E. 101 s. Principles of Electrical Engineering (3)—Two lectures; one laboratory. Prerequisites, Phys. 2 y, Math. 23 y. Required of juniors in civil engineering.

Fundamentals of direct current and alternating current machinery; application of machines for specific duties; operating characteristics of generators, motors, and transformers. (Hodgins.)

E. E. 102 y. Principles of Electrical Engineering (8)—Three lectures; one laboratory. Required of juniors in chemical and mechanical engineering and seniors in mechanical engineering for 1939-1940. Prerequisite, junior or senior standing.

Study of elementary direct current and alternating current characteristics. Principles of construction and operation of direct and alternating current machinery. Experiments on the operation and characteristics of generators, motors, transformers, and control equipment. (Laning.)

E. E. 103 f. Direct Currents (5)—Three lectures; two laboratories. Prerequisites, Phys. 2 y, Math. 23 y, and E. E. 1 s. Required of juniors in electrical engineering.

Construction, theory of operation and performance characteristics of direct current generators, motors, and control apparatus. Principles of construction, characteristics and operation of primary and secondary batteries and control equipment. Experiments on battery characteristics, and the operation and characteristics of direct current generators and motors. (Hodgins.)

E. E. 104 f. Direct Current Design (1)—One laboratory. Prerequisite, taken concurrently with E. E. 103 f. Required of juniors in electrical engineering.

The purpose of this course is to help the student in electrical engineering to acquire a thorough knowledge of the basic principles upon which any design depends. A study is made of design formulas and materials, suitable for direct current machinery, and the reasons for the various standards of practice. The student is required to make all calculations for a direct current generator or motor. (Hodgins.)

E. E. 105 y. Advanced Electricity and Magnetism (8)—Two lectures, two laboratories, first semester; three lectures, one laboratory, second semester. Prerequisites, Phys. 2 y, Math. 23 y, and concurrent registration in E. E. 103 f and E. E. 106 s. Required of juniors in electrical engineering.

Theoretical and experimental investigation of the field of electricity and magnetism. This covers a study of electric and magnetic fields, electric and magnetic properties of materials, circuits, liquid and gaseous conduction, and electrical measurements. (Laning.)

E. E. 106 s. Alternating Current Circuits (5)—Three lectures; two laboratories. Prerequisites, E. E. 103 f and concurrent registration in E. E. 105 y. Required of juniors in electrical engineering.

Introduction to the theory of alternating current circuits, both single phase and polyphase; methods and apparatus used to measure alternating currents, voltage, and power; current and voltage relations in balanced and unbalanced polyphase systems. (Hodgins.)

E. E. 107 y. Alternating Current Machinery (8)—Three lectures; one laboratory. Prerequisite, E. E. 106 s. Required of seniors in electrical engineering.

Construction, theory of operation and performance characteristics of transformers, alternators, induction motors, synchronous motors, synchronous converters, commutator type motors, and other apparatus; tests and experiments. (Creese.)

E. E. 108 f. Alternating Current Design (1)—One laboratory. Prerequisites, E. E. 104 f and concurrent registration in E. E. 107 y. Required of seniors in electrical engineering.

This course is a continuation of the course in Direct Current Design, E. E. 104 f, and applies the same principles to the design of an alternator and transformer. (Hodgins.)

E. E. 109 y. Electrical Communications (6)—Two lectures; one laboratory. Prerequisite, E. E. 106 s. Taken concurrently with E. E. 107 y.

Principles of wire and radio communication. Theory and calculation of passive networks including transmission lines and coupled circuits. Theory and calculation of non-linear impedances including the vacuum tube. Introduction to electromagnetic wave propagation. (Kear.)

E. E. 110 f. Illumination (3)—Two lectures; one laboratory. Prerequisite, E. E. 106 s. Taken concurrently with E. E. 107 y. Required of seniors in electrical engineering.

Electric illumination; principles involved in design of lighting systems, illumination calculations, photometric measurements. (Creese.)

E. E. 111 f. Electric Railways (3)—Three lectures. Prerequisite, E. E. 106 s. Taken concurrently with E. E. 107 y.

Mechanism of train motion. Construction of speed-time and power-time curves, and their use in the application of electrical equipment to transportation. Construction, operation, and control of apparatus used in different fields of electrical transportation, such as urban railways, trunk line railways, and busses. Power requirements, distribution systems, and signal systems. (Hodgins.)

E. E. 112 s. Electric Power Transmission (3)—Three lectures. Prerequisite, E. E. 106 s. Taken concurrently with E. E. 107 y.

Survey of central station and substation equipment. Calculation of line constants. Mechanical and economical considerations of transmission of power. Fundamentals of transients. (Laning.)

E. E. 113 s. Engineering Electronics (3)—Two lectures; one laboratory. Prerequisite, senior standing. Required of seniors in electrical engineering.

Review of fundamental properties of electrons; emission, control and utilization of electrons in vacuum, gases, and vapors; electron tubes, and associated circuit theory; photocells; and specialized electron tubes. (Not given in 1939-40.) (Laning.)

E. E. 114 y. Thesis (3)—One laboratory first semester; one lecture, one laboratory second semester. Required of seniors in electrical engineering.

The student selects, with faculty approval, a subject in electrical engineering design or research. He makes such field or laboratory studies as may be needed. Weekly progress reports are required, and frequent conferences are held with the member of the faculty to whom the student is assigned for advice. A written report, including an annotated bibliography, is required to complete the thesis. (Creese and Staff.)

General Engineering Subjects

Engr. 1 f. Introduction to Engineering (1)—One lecture. Required of freshmen in engineering.

A course of lectures by the faculty and by practicing engineers covering the engineering professional fields. The work of the engineer, its requirements in training and character, and the ethics and ideals of the profession. The purpose of this course is to assist the freshman in selecting the particular field of engineering for which he is best adapted.

Engr. 101 f. Engineering Geology (2)—Two lectures. Required of juniors in civil engineering.

The fundamentals of geology with engineering applications. (Hess.)

Engr. 102 s. Engineering Law and Specifications (2)—Two lectures. Required of seniors in civil, electrical, and mechanical engineering.

A study is made of the fundamental principles of law relating to business and to engineering; including contracts, agency, negotiable instruments, corporations, and common carriers. These principles are then applied to the analysis of general and technical clauses in engineering contracts and specifications. (Steinberg.)

Mechanics

Mech. 1 s. Statics and Dynamics (3)—Three lectures. Taken concurrently with Math. 23 y and Phys. 2 y. Required of sophomores in civil and electrical engineering.

Analytical and graphical solutions of coplanar and non-coplanar force systems; equilibrium of rigid bodies; suspended cables, friction, centroids and moments of inertia; kinematics and kinetics; work, power, and energy; impulse and momentum.

Mech. 2 s. Statics and Dynamics (5)—Four lectures; one laboratory. Taken concurrently with Math. 23 y and Phys. 2 y. Required of sophomores in mechanical engineering.

Analytical and graphical solution of coplanar and non-coplanar force systems; equilibrium of rigid bodies; suspended cables, friction, centroids and moments of inertia, kinematics and kinetics; work, power, and energy; impulse and momentum.

The course also embraces the fundamentals of kinematics necessary to the study of kinematics of machinery. Plane motion of a particle and the

general laws governing the transmission of plane motion are treated by vector and graphical methods.

Mech. 101 f. Strength of Materials (5)—Four lectures; one laboratory. Prerequisite, Mech. 1 s or Mech. 2 s. Required of juniors in civil and mechanical engineering.

Riveted joints; torsional stresses and strains; beam stresses and deflection; combined axial and bending loads; column stresses; principal stresses and strains; impact and energy loads; statically indeterminate beams; shear center; unsymmetrical bending; composite members including reinforced concrete beams. Instruction in the use of an approved handbook containing the properties of rolled steel sections. (Younger, Ernst.)

Mech. 102 f. Strength of Materials (4)—Three lectures; one laboratory. Prerequisite, Mech. 1 s or Mech. 2 s. Required of juniors in electrical engineering.

A shorter course than Mech. 101 f. Instruction in the use of an approved handbook containing the properties of rolled steel sections. (Ernst.)

Mech. 103 s. Materials of Engineering (2)—One lecture; one laboratory. Prerequisite, Mech. 101 f or Mech. 102 f. Required of juniors in civil, electrical, and mechanical engineering.

The composition, manufacture, and properties of the principal materials used in engineering, and of the conditions that influence their physical characteristics. The interpretation of specifications and of standard tests. Laboratory work in the testing of steel, wrought iron, timber, brick, cement, and concrete. (Pyle.)

Mechanical Engineering

M. E. 101 f. Thermodynamics (3)—Three lectures. Prerequisites, Math. 23 y, Phys. 2 y. Required of seniors in electrical engineering.

The theory and application of thermodynamics to the steam engine, steam turbine, nozzles. The properties of vapors, cycles of heat and entropy, including discussion of machines and their uses. (Green.)

M. E. 102 y. Machinery Design (4)—One lecture; one laboratory. Prerequisite, Mech. 101 f or registration therein.

A course treating mechanics of machinery and the design of machine members and mechanisms. (Huckert.)

M. E. 103 y. Thermodynamics (4)—Two lectures, first semester; one lecture, one laboratory second semester. Prerequisites, Math. 23 y, and Phys. 2 y. Required of juniors in mechanical engineering.

The properties and fundamental equations of gases and vapors. Thermodynamics of heat cycles, air compressors, and steam engines. (Huckert.)

M. E. 104 s. Aerodynamics and Hydrodynamics (3)—Three lectures. Prerequisites, Math. 23 y, Phys. 2. Required of juniors in mechanical engineering, aeronautical option.

A study of the fundamental principles of the flow of air and of water. Applications with special reference to the airplane; airfoil and propeller theory; theory of model testing in wind tunnels; design performance calculations of airplanes. (Younger.)

M. E. 105 f. Internal Combustion Engines (3)—Three lectures. Prerequisite, M. E. 103 y. Required of seniors in mechanical engineering.

Theory, construction, and operation of gasoline and oil engines. Design and operation of Otto and Diesel cycle engines. (Green.)

M. E. 106 f. Heating and Ventilation (3)—Two lectures; one laboratory. Prerequisite, M. E. 103 y. Required of seniors in mechanical engineering.

The study of types of heating and ventilating systems for a particular building; layout of piping and systems, with complete calculations and estimates of costs; fundamentals of air conditioning. (Dill.)

M. E. 107 s. Refrigeration (3)—Two lectures; one laboratory. Prerequisite, M. E. 103 y. Required of seniors in mechanical engineering.

Problems involving the different methods and processes of refrigeration. Air conditioning for offices, buildings, factories and homes. (Dill.)

M. E. 108 y. Design of Prime Movers (6)—Two lectures; one laboratory. Prerequisites, Mech. 101 f, C. E. 102 s. Required of seniors in mechanical engineering.

The design and proportioning of parts of essential prime movers for power plants, and industrial uses. (Younger.)

M. E. 109 s. Design of Power Plants (2)—Two lectures. Taken concurrently with M. E. 108 y. Required of seniors in mechanical engineering.

The design of power plants, including the layout and cost of building, installation of equipment, and determination of size for most economical operation. (Green.)

M. E. 110 y. Mechanical Laboratory (2)—One laboratory. Required of seniors in mechanical engineering.

Calibration of instruments, gauges, indicators, steam, gas and water meters. Indicated and brake horsepower of steam and internal combustion engines, setting of valves, tests for economy and capacity of boilers, engines, turbines, pumps, and other prime movers. Feed water heaters and condensers; B. T. U. analysis of solid, gaseous, and liquid fuels, and power plant tests. (Younger, Lindahl, Green.)

M. E. 111 y. Thesis (3)—One laboratory first semester; one lecture, one laboratory second semester. Required of seniors in mechanical engineering.

The student selects, with faculty approval, a subject in mechanical engineering design or research. He makes such field or laboratory studies as

may be needed. Weekly progress reports are required, and frequent conferences are held with the member of the faculty to whom the student is assigned for advice. A written report, including an annotated bibliography, is required to complete the thesis. (Younger and Staff.)

M. E. 112 y. Prime Movers (8)—Three lectures; one laboratory. Prerequisites, Mech. 101 f, C. E. 102 s. Required of seniors in mechanical engineering.

A course covering the use of prime movers to convert heat into power. It includes a study of heat, fuels and combustion processes followed by the theory, construction and operation of internal combustion engines, steam engines, boilers, condensers, steam turbines and their auxiliary equipment. Theory is supplemented by practical problems and by laboratory tests. The entire course is closely integrated with the Mechanical Laboratory course. (Not given 1939-40.) (Green.)

M. E. 113 y. Mechanical Engineering Design (7)—Two lectures; two laboratories, first semester; one lecture, two laboratories, second semester. Prerequisite, Mech. 101 f. Required of seniors in mechanical engineering.

A course embracing the kinematics and dynamics of machinery and the design of machine members and mechanisms. Special problems on the balancing, vibration, and critical speeds of machine members are treated. (Not given 1939-40.) (Huckert.)

M. E. 114 y. Mechanical Laboratory (6)—Three laboratories. Prerequisite, senior standing. Required of seniors in mechanical engineering.

Calibration of instruments, gauges, indicators, steam, gas and water meters. Indicated and brake horsepower of steam and internal combustion engines, setting of valves, tests for economy and capacity of boilers, engines, turbines, pumps, and other prime movers. Feed water heaters and condensers; B. T. U. analysis of solid, gaseous, and liquid fuels, and power plant tests. (Not given 1939-40.) (Younger and Staff.)

M. E. 115 y. Airplane Structures (6)—Three lectures. Prerequisite, M. E. 104 s. Required of seniors in mechanical engineering, aeronautics option.

The fundamental principles of structural analysis and design of airplanes. The air worthiness requirements of the Civil Aeronautics Authority and the design requirements of the government service branches are given special consideration. (Not given 1939-40.) (Younger.)

M. E. 116 f. Principles of Mechanical Engineering (3)—Two lectures; one laboratory. Required of juniors in civil engineering. Prerequisites, Math. 23 y, and Phys. 2 y.

Elementary thermodynamics and the study of heat, fuel, and combustion in the production and use of steam for the generation of power. Includes study of fundamental types of steam boilers, fuel burning equipment, prime movers, and their allied apparatus. Supplemented by laboratory tests and trips to industrial plants. (Lindahl.)

M. E. 117 s. Power Plants (3)—Two lectures; one laboratory. Required of seniors in electrical engineering. Prerequisite, senior standing.

A study of heat, fuel, and combustion in the production and use of steam for the generation of power. Includes the theory and operation of steam engines, boilers, condensers, steam turbines, and their accessories. Practical power problems as applied to typical power plants, supplemented by laboratory tests and trips to industrial plants. (Green.)

Shop

Shop 1 s. Forge Practice (1)—One combination lecture and laboratory. Required of freshmen in engineering.

Lectures and recitations on the principles of forging and heat treatment of steel. Demonstrations in acetylene and electric welding, brazing, cutting, and case hardening. Laboratory practice in drawing, bending, upsetting, forge welding, hardening, tempering, and thread cutting.

Shop 2 f. Machine Shop Practice (1)—One laboratory. Required of sophomores in electrical engineering.

Practice in bench work, turning, planing, drilling, and pipe threading.

Shop 3 f. Machine Shop Practice (2)—One lecture; one laboratory. Required of sophomores in mechanical engineering.

Study of the fundamental principles of machine tools, such as lathe, planer, shaper, milling machine, drilling machine, and grinding machines. Calculation for cutting threads, spur and helical gears, fluting and cutting speeds and coolants. The laboratory work in this course is identical with Shop 2 f. Practice in bench work, turning, planing, drilling, and pipe threading.

Shop 4 f. Machine Shop Theory (1)—One lecture. Open to non-engineering students.

This course consists of the lecture work only of Shop 3 f, and is scheduled concurrently with Shop 3 f.

Shop 5 s. Machine Shop Practice (2)—Two laboratories. Open to non-engineering students.

Practice in bench work, turning, planing, drilling, pipe threading, thread cutting, surface grinding, and fluting and cutting spur and helical gears.

Shop 6 y. Wood Shop (2)—One laboratory. Open to non-engineering students.

Use and care of wood-working tools and exercises in sawing, planing, turning, finishing, and laying out work from blueprints. (A charge will be made for materials actually used, approximately \$2.00 a semester.)

Shop 101 f. Machine Shop Practice (1)—One laboratory. Required of juniors in mechanical engineering.

Advanced practice with standard machine tools. Exercises in thread cutting, surface grinding, fluting, cutting spur and helical gears, and jig work. (Hoshall.)

Shop 102 s. Foundry Practice (1)—One combination lecture and laboratory. Required of juniors in mechanical engineering.

Lectures and recitations on foundry products and layout, materials and equipment, hand and machine moulding, cupola practice and calculating mixes. Core making, moulding, casting in aluminum, brass, and gray iron. (Hoshall.)

Surveying

Surv. 1 f and s. Elements of Plane Surveying (1)—Combined lecture and laboratory work. Prerequisites, Math. 21 f, and 22 s. Required of sophomores in chemical, electrical, and mechanical engineering.

A brief course in the use of the tape, compass, level, transit, and stadia. Computations for area, coordinates, volume, and plotting.

Surv. 2 y. Plane Surveying (5)—One lecture; one laboratory first semester; one lecture, two laboratories second semester. Prerequisites, Math. 21 f and 22 s. Required of sophomores in civil engineering.

Theory of and practice in the use of the tape, compass, transit, and level. General survey methods, traversing, area, coordinates, profiles, cross-sections, volume, stadia.

Surv. 101 f. Advanced Surveying (4)—Two lectures; two laboratories. Prerequisite, Surv. 2 y. Required of juniors in civil engineering.

Adjustment of instruments, latitude, longitude, azimuth, time, triangulation, precise leveling, geodetic surveying, together with the necessary adjustments and computations. Topographic surveys. Plane table, land surveys, and boundaries. Mine, tunnel, and hydrographic surveys. (Pyle.)

ENGLISH LANGUAGE AND LITERATURE

PROFESSORS HALE, WARFEL; ASSOCIATE PROFESSOR HARMAN; ASSISTANT PROFESSORS LEMON, FITZHUGH, ZEEVELD; MR. MURPHY, MR. BALL, MISS IDE, MR. SIXBEY,* MR. BRYAN,* MR. GRAVELY, MISS MILLER, MRS. BALCOM, MR. PEDEN, MR. ROBERTSON, DR. RUSK, MR. SWEARINGEN, MRS. WARD, MR. WARD.

Eng. 1 y. Survey and Composition I (6)—Three lectures. Freshman year. Prerequisite, three units of high school English and successful passing of the qualifying examination given by the Department, or successful completion of English A. Required of all four-year students.

A study of style, syntax, spelling, and punctuation, combined with an historical study of the literature of the nineteenth and twentieth centuries. Written themes, book reviews, and exercises. Each semester of this course will be repeated in the following semester.

*Absent on leave.

Eng. A f. Special Preparatory Course (0)—Three lectures. Freshman year. Prerequisite, three units of high school English. Required of all students who fail to pass the qualifying examination. Students who show sufficient progress after five weeks of English A will be transferred to English 1 y. Others will continue with English A for one semester. The department reserves the right to transfer students who make unsatisfactory progress from English 1 y to English A f.

A course in grammatical and rhetorical principles designed to help students whose preparation has been insufficient for English 1 y. Exercises, conferences, precis writing. This course will be repeated in the second semester.

Eng. 2 f. Survey and Composition II (3)—One general lecture given by various members of the department; two quiz sections. Sophomore year. Prerequisite, Eng. 1 y. Required of all students in the College of Arts and Sciences.

A continuation of work in composition based on the work accomplished in Eng. 1 y. An historical study of English Literature from the beginnings to the nineteenth century. Themes, book reports, conferences.

Eng. 3 s. Survey and Composition II (3)—One lecture; two quiz sections. Prerequisites, Eng. 1 y and Eng. 2 f. Continuation of Eng. 2 f.

Eng. 4 f or s. Business English (2)—Two lectures. Prerequisite, Eng. 1 y. Course complete in one semester, but may be taken in either semester.

This course develops the best methods of writing effective business letters.

Eng. 5 f. Expository Writing (2)—Two lectures. Prerequisite, Eng. 1 y.

Study of the principles of exposition. Analysis and interpretation of material bearing upon scientific matter. Themes, papers, and reports.

Eng. 6 s. Expository Writing (2)—Two lectures. Prerequisite, Eng. 5 f. Continuation of Eng. 5 f.

Eng. 7 f, 8 s. Survey of American Literature (3, 3)—Three lectures. Prerequisite, Eng. 1 y.

First semester, American thought and expression from 1607 to 1865, with emphasis upon colonial cultural patterns, upon the rise of nationalism, and upon sectional conflict. Reports and term paper.

Second semester, emphasis upon the changing social forces which influenced American writers after 1865. Reports and term paper.

Eng. 11 f, 12 s. Shakespeare (3, 3)—Three lectures. Prerequisite, Eng. 1 y.

First semester, eleven significant early plays, illustrating the drama as a distinct form of art. Dramatic criticisms; preparation of acting script; experimental production.

Second semester, ten significant late plays.

Eng. 13 s. Introduction to Narrative Literature (2)—Two lectures. Prerequisite, Eng. 1 y. Not open to freshmen.

An intensive study of representative stories, with lectures on the history and technique of the short story and of other narrative forms.

Eng. 14 f. College Grammar (3)—Three lectures. Prerequisite, Eng. 1 y. Required of students preparing to teach English.

Studies in the descriptive grammar of modern English.

Drama 1 f. Amateur Play Production (3)—Three lectures.

A basic course for little theatre workers and secondary school teachers of dramatics. Brief survey of the mechanics used in the theatre from early Greek tragedy to contemporary times. Plays of each major period studied with attention to the method of creating theatrical effectiveness. Admission by the permission of the instructor. (Not given, 1939-40.)

Drama 2 s. Amateur Play Production (3)—Three lectures and one laboratory.

Fundamental principles of acting, staging, lighting, and direction of amateur production. Each student will make a production book of one or more plays and engage in practical laboratory work. Admission by the permission of the instructor. (Not given, 1939-40.)

For Advanced Undergraduates and Graduates

Qualified major students who wish to read for honors in English should apply to the chairman of the department. The reading may be done in the last two years, but should, if possible, be begun earlier.

In addition to the twelve hours of basic freshman and sophomore English, a student taking his major work in this department must pass one semester of Advanced Writing, one semester of College Grammar, and one semester of either History of the Language or Old English. In addition, he must complete one of the schedules below.

a. Major work in general literature (recommended for those preparing to teach English in secondary schools): Introduction to American Literature, Shakespeare, and at least six hours from the following: Milton; Literature of the 18th Century; Prose and Poetry of the Romantic Age; Victorian Literature; Modern and Contemporary British Poets; Emerson, Thoreau, and Whitman; American Fiction; Contemporary American Poetry and Prose.

b. Major work in American literature: Survey of American Literature; Emerson, Thoreau, and Whitman; American Fiction; Contemporary American Poetry and Prose; American Drama.

c. Major work in drama: Shakespeare, and twelve hours from the following: Medieval Drama, Elizabethan Drama, Modern Drama, Contemporary Drama, American Drama, Amateur Play Production, Introduction to Comparative Literature (first semester), The Spanish Drama, The Faust Legend, Ibsen.

d. Major work in English literature: Shakespeare, and at least twelve hours in the department in advanced courses other than American literature.

Minor work may also be elected in these fields, but no major and minor combination of a. and b. or of a. and d. will be permitted.

Eng. 100 f and s. Advanced Writing (2)—Two lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s. Course complete in one semester, but may be taken a second semester for credit. Required of all students whose major is English. Open to others by permission of instructor.

Theory and practice in the larger forms, the types to be varied each semester at the election of the class. (Bryan.)

Eng. 101 s. History of the English Language (3)—Three lectures. Prerequisite, Eng. 14 f.

An historical survey of the English Language: its nature, origin, and development, with special stress upon structural and phonetic changes in English speech and upon the rules which govern modern usage. (Harman.)

Eng. 102 f. Old English (3)—Three lectures. Prerequisite, Eng. 14 f.

A study of Old English grammar and literature. Lectures on the principles of phonetics and comparative philology. (Ball.)

Eng. 103 s. Beowulf (3)—Three lectures. Prerequisite, Eng. 102 f.

A study of the Old English epic in the original. (Ball.)

Eng. 104 f. Chaucer (3)—Three lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s.

A study of the *Canterbury Tales*, *Troilus and Criseyde*, and the principal minor poems, with lectures and readings on the social background of Chaucer's time. (Hale.)

Eng. 105 f. Medieval Drama in England (3)—Three lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s.

A study of the development of medieval English drama from its beginning to 1540. Class discussion of significant plays, outside reading, reports. (Fitzhugh.)

Eng. 106 s. Elizabethan Drama (3)—Three lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s.

A study of the change in spirit and form of English drama from 1540 to 1640, as seen in the works of the important dramatists other than Shakespeare. Class discussion of significant plays, outside reading, written dramatic criticisms. (Zeeveld.)

Eng. 107 s. Renaissance Poetry and Prose (3)—Three lectures. Prerequisites, Eng. 2 f and 3 s.

A study of the literary manifestations of humanism and the new national spirit in sixteenth-century England, with emphasis on the prose

works of More, Lyly, Sidney, Hooker, Bacon, and the translators of the Bible, and on the poetry of Spenser. (Not given, 1939-40.) (Zeeveld.)

Eng. 108 f. Milton (2)—Two lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s.

A study of the poetry and the chief prose works. (Murphy.)

Eng. 109 f. Literature of the Seventeenth Century to 1660 (2)—Two lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s.

A study of the chief prose writers and of the Metaphysical and Cavalier traditions in poetry; the age of Dryden. (Murphy.)

Eng. 111 f, 112 s. Literature of the Eighteenth Century (2, 2)—Two lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s.

First semester, readings in the period dominated by Defoe, Swift, Addison, Steele, and Pope.

Second semester, Dr. Johnson and his Circle; the Rise of Romanticism; the Letter Writers. (Not given in 1939-40.) (Fitzhugh.)

Eng. 113 f, 114 s. Prose and Poetry of the Romantic Age (3, 3)—Three lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s.

First semester, a study of the development of the Romantic movement in England as exemplified by the prose and poetry of Wordsworth, Coleridge, Lamb, De Quincey, Landor, and others.

Second semester, a study of the later Romantic writers, including Byron, Shelley, Keats, Moore, Scott, and others. (Hale.)

Eng. 115 f.—Scottish Poetry (2)—Two lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s. No knowledge of the Scottish dialect required.

Readings in the Scottish Chaucerians; Drummond of Hawthornden; song and ballad literature; poets of the vernacular revival: Ramsay, Ferguson, and Burns. Papers and reports. (Fitzhugh.)

Eng. 116 f, 117 s. Victorian Prose and Poetry (3, 3)—Three lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s.

A study of the chief English authors of the Nineteenth Century from the close of the Romantic Period. (———)

Eng. 118 s. Modern and Contemporary British Poets (3)—Three lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s.

A study of the chief English and Irish poets of the Twentieth Century. (Murphy.)

Eng. 120 f, 121 s. The History and Development of the Novel in England (3, 3)—Three lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s.

A study of the origin and development of the novel as a form in England from the beginning to the Nineteenth Century. (Ide.)

Eng. 123 f. Modern Drama (3)—Three lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s.

A survey of English drama during the two centuries from 1660 to 1860. Class discussion of significant plays, outside reading, reports. (Not given in 1939-40.) (Fitzhugh.)

Eng. 124 s. Contemporary Drama (3)—Three lectures. Prerequisites, Eng. 1 y and Eng. 2 f and 3 s.

A study of significant European and American dramatists from Ibsen to O'Neill. Class discussion of significant plays, outside reading, reports. (Fitzhugh.)

Eng. 125 f. Emerson, Thoreau, and Whitman (3)—Three lectures. Prerequisites, Eng. 7 f and 8 s.

A study of the major writings of Emerson, Thoreau, and Whitman, with emphasis on transcendentalism, idealism, and democracy. (Warfel.)

Eng. 126 s. American Fiction (3)—Three lectures. Prerequisites, Eng. 7 f and 8 s.

Historical and critical study of the short story and novel in the United States from 1789 to 1920. (Warfel.)

Eng. 127 f. Contemporary American Poetry and Prose (3)—Three lectures. Prerequisites, Eng. 7 f and 8 s.

Tendencies and forms in non-dramatic literature since 1920. (Not given in 1939-40.) (Warfel.)

Eng. 128 s. American Drama (3)—Three lectures. Prerequisites, Eng. 7 f and 8 s.

Historical study of representative American plays and playwrights from 1787 to 1920. (Not given in 1939-40.) (Warfel.)

For Graduates

Requirements for Advanced Degrees with Major in English (in addition to the general requirements of the Graduate School).

Master of Arts

Candidates for the degree of Master of Arts in the Department of English must demonstrate a reading knowledge of French or German at the time of admission or not later than six months before taking the degree.

In the thesis, the candidate will be expected to demonstrate his ability to use the ordinary methods of research in the discovery of knowledge and to organize and present his findings in a clear, effective English style.

The final examination will be based in part upon the courses pursued and in part upon first-hand knowledge of all the literary works included in the departmental list of readings for the Master's degree. The examination will test the candidate's powers of analysis and criticism.

Major work in the department may be elected in any of the following fields, the requirements of which are listed below.

a. Major work in English literature: Old English, and at least six hours from seminar courses in Medieval Romance, the Elizabethan period, the Eighteenth Century, The Romantic period, the Victorian period.

b. Major work in American literature: the seminar in American literature, and at least six hours from the advanced undergraduate courses in American literature.

c. Major work in drama: History of the Theatre, and at least six hours from the following: Introduction to Comparative Literature (first semester), Medieval Drama, Elizabethan Drama, Modern Drama, Contemporary Drama, American Drama, The Faust Legend, The Modern German Drama, Spanish Drama, Ibsen.

d. Major work in philology: Old English, Beowulf, Middle English, Gothic, and either Medieval Romance or Chaucer.

e. General major (designed chiefly for teachers in secondary schools): Old English, and at least six hours from the following groups: Elizabethan Drama, or an Elizabethan seminar; Milton; the Eighteenth Century, either undergraduate or seminar; Prose and Poetry of the Romantic Age or Seminar in the Romantic Period, Contemporary American Prose and Poetry or the American seminar.

Minor work may also be elected in these fields, but no major and minor combination of a. and e. will be permitted.

Doctor of Philosophy

In addition to the requirements of the Graduate School, each candidate must have the following courses:

a. Three credit hours in Comparative Literature.

b. Six credit hours in Old English, English 102 f and 103 s, plus four credit hours in a seminar in Old English poetry.

c. Four credit hours in the Middle English Language (Eng. 202 f) and Gothic (Eng. 203 s).

Candidates must pass a comprehensive written examination, preferably one year before they expect to be awarded degrees. This examination will include linguistics (morphology and phonology) and each of the major literary fields, from which the candidate may select two for particularly detailed examination, specifically: Old English, Middle English, the Drama, the Sixteenth and Seventeenth Centuries, the Eighteenth Century, the Nineteenth Century, American Literature.

Eng. 200 f or s. Seminar in Special Studies (1-3). Credit proportioned to the importance of the problems assigned. Work under personal guidance in some problem of especial interest to the graduate student, but not connected with the thesis. (Staff.)

Eng. 201 f or s. Research (2-4)—Credit proportioned to the amount of work and ends accomplished. Original research and the preparation of dissertations for the doctor's degree. (Staff.)

Eng. 202 f. Middle English Language (2)—Two lectures. Prerequisites, Eng. 102 f and 103 s.

A study of readings of the Middle English period, with reference to etymology and syntax. (Harman.)

Eng. 203 s. Gothic (2)—Two lectures. Prerequisite, Eng. 102 f.

A study of the forms and syntax, with readings from the *Ulfilas Bible*. Correlation of Gothic speech sounds with those of Old English. (Harman.)

Eng. 204 y. Medieval Romance in England (4)—Two lectures.

Lectures and readings in the cyclical and non-cyclical romances in Medieval England, and their sources, including translations from the Old French. (Not given in 1939-40.) (Hale.)

Eng. 205 s. Seminar in Sixteenth-Century Humanism in England (2)—Two lectures. Prerequisite, Eng. 107 s.

The subject will be *The continuity of early English humanism*. (Zeeveld.)

Eng. 206 s. Seminar in Spenser (2)—Two lectures. Prerequisite, Eng. 107 s.

The subject will be *Spenser and Sixteenth-Century Puritanism*. (Not given in 1939-40.) (Zeeveld.)

Eng. 207 f. Seminar in Shakespeare (2)—Two lectures. Prerequisites, Eng. 11 f and Eng. 12 s.

In 1939-1940, the subject will be *A Study of Shakespeare's Prosody*. (Zeeveld.)

Eng. 208 s. Seminar in Eighteenth Century Literature (2)—Two lectures.

Intensive study of one man's work or of one important movement of the century. (Fitzhugh.)

Eng. 209 y. Seminar in American Literature (4)—Two lectures.

Critical and biographical problems in nineteenth century American Literature. The subject for 1939-40 will be *American Fiction to 1860*. (Warfel.)

Eng. 210 f. Seminar in the Romantic Period (2)—Two lectures. Prerequisites, Eng. 113 f and 114 s, or an equivalent satisfactory to the instructor. One discussion period of two hours.

Special studies of problems or persons associated with the Romantic movement. The subject-matter of the course will vary with the interests of the class. (Hale.)

Eng. 211 y. Seminar in the Victorian Period (4)—Two lectures. Prerequisites, Eng. 116 f and 117 s, or the permission of the instructor.

Special studies of problems or persons in the Victorian Age. The subject-matter of the course will vary with the interests of the class. (——.)

ENTOMOLOGY

PROFESSOR CORY; LECTURERS SNODGRASS, YEAGER; ASSISTANT PROFESSOR KNIGHT; DR. DITMAN, DR. LANGFORD, MR. MCCONNELL, MR. ABRAMS, MR. BICKLEY.

Ent. 1 f and s. Introductory Entomology (3)—Two lectures; one laboratory. Prerequisite, 1 year college biology.

The relationships of insects to the activities of mankind; the general principles of insect morphology, classification, adaptation; elementary principles of economic entomology. Field work and the preparation of a collection of representative insects of Maryland. Fee, \$3.00.

Ent. 2 s. Insect Morphology (3)—One lecture; two laboratories. Prerequisite, Ent. 1.

A study of the anatomy of insects, given especially in preparation for work in insect taxonomy and biology. Fee, \$2.00.

Ent. 3 f. Insect Taxonomy (3)—One lecture; two laboratories. Prerequisite, Ent. 2 s.

The general principles of taxonomy. An intensive study of the classification of all orders of insects and the principal families in the major groups. The preparation of a collection of insects is a major portion of the course. Fee, \$2.00.

Ent. 4 f. Beekeeping (2)—One lecture; one laboratory. Prerequisite, Zool. 1 s.

History of beekeeping, natural history and behavior of the honeybee. A study of the beekeeping industry. A non-technical course intended to acquaint the student with the honeybee as an object of biological and cultural interest, and to serve as an introduction to the science of apiculture.

Ent. 5 s. Insect Biology (3)—Two lectures; one laboratory. Prerequisite, Ent. 1.

A continuation of some of the general aspects of entomology begun in Ent. 1, with emphasis upon the adaptations, behavior, inter-relationships, and ecology of insects.

Ent. 6 f.—Apiculture (3)—Two lectures; one laboratory. Prerequisite, Zool. 1 s and Ent. 1.

A study of the life history, yearly cycle, behavior, and activities of the honeybee. The value of honeybees as pollenizers of economic plants and as producers of honey and wax. Designed to be of value to the student of agriculture, horticulture, entomology, and zoology.

Ent. 7 s. Apiculture (3)—Two lectures; one laboratory. Prerequisite, Ent. 6 f.

Theory and practice of apiary management. Designed for the student who wishes to keep bees or desires a knowledge of practical apiary management.

Ent. 8 f, 9 s. Entomological Technic and Scientific Delineation (2, 2)—Two laboratories. Prerequisite, Ent. 1 f or s.

Collecting, rearing, preserving, and mounting of insects. The preparation of exhibits, materials for instruction, entomological records. Methods of illustrating, including drawing, photography, lantern slide making, and projection. Useful for prospective teachers of biology as well as for the entomological student. (Not offered in 1939-1940.) Fee, \$2.00 per semester.

For Advanced Undergraduates and Graduates

Ent. 101 y. Economic Entomology (4)—Two lectures.

An intensive study of the problems of applied entomology, including life history, ecology, behavior, distribution, parasitism, and control. (Not offered in 1939-40.) (Cory.)

Ent. 102 y. Economic Entomology (4)—Two laboratories.

Expansion of Ent. 101 y to include laboratory and field work in economic entomology. (Not given in 1939-40.) (Cory.)

Ent. 103 f, 104 s. Insect Pests of Special Groups (3, 3)—Two lectures; one laboratory. Prerequisite, Ent. 1.

A study of the principal insects of one or more of the following groups, founded upon food preferences and habitat. The course is intended to give the general student a comprehensive view of the insects that are of importance in his major field of interest and detailed information to the student specializing in entomology.

Insect Pests of 1. Fruit. 2. Vegetables. 3. Flowers, both in the open and under glass. 4. Ornamentals and Shade Trees. 5. Forests. 6. Field Crops. 7. Stored Products. 8. Live Stock. 9. The Household. Fee, \$2.00 per semester. (Cory.)

Ent. 105 f. Medical Entomology (2)—Two lectures. Prerequisite, Ent. 1 f or s, and consent of instructor.

The relation of insects to diseases of man, directly and as carriers of pathogenic organisms. Control of pests of man. The fundamentals of parasitology. (Knight.)

Ent. 106 s. Insect Taxonomy (3)—Two lectures; one laboratory.

An advanced course dealing with the principles and practices underlying modern systematic entomology. (Not offered in 1939-1940.)

Ent. 107 s. Theory of Insecticides (3)—Three lectures.

The development and use of contact and stomach poisons, with regard to their chemistry, toxic action, compatibility, and foliage injury. Recent work with insecticides will be especially emphasized. Fee, \$2.00. (Ditman.)

Ent. 109 s. Insect Physiology (2)—Two lectures; occasional demonstrations. Enrollment subject to consent of instructor.

The functioning of the insect body with particular reference to blood, circulation, digestion, absorption, excretion, respiration, reflex action and the nervous system, and metabolism. (Yeager.)

Ent. 110 f and s. **Special Problems.** Credit and prerequisite to be determined by the staff.

The intensive investigation of some entomological subject. A report of the results is submitted as part of the requirements for graduation.
(Cory and Staff.)

Ent. 111 s. **Coccidology (2)**—Two laboratories.

A study of morphology, taxonomy, and biology of the higher groups of the scale insects. The technic of preparation and microscopy are emphasized. Laboratory studies are supplemented by occasional lectures. Fee, \$2.00.
(McConnell.)

Ent. 112 y. **Seminar (2).**

Presentation of original work, book reviews, and abstracts of the more important literature.
(Cory, Knight.)

For Graduates

Ent. 201 y. **Advanced Entomology (1-3)**—One lecture; laboratory by arrangement.

Studies of minor problems in morphology, taxonomy, and applied entomology, with particular reference to preparation for individual research.
(Cory.)

Ent. 202 y. **Research in Entomology.**

Advanced students having sufficient preparation, with the approval of the head of the department, may undertake supervised research in morphology, taxonomy, or biology and control of insects. Frequently the student may be allowed to work on Station or State Horticultural Department projects. The student's work may form a part of the final report on the project and be published in bulletin form. A dissertation suitable for publication must be submitted at the close of the studies as a part of the requirements for an advanced degree.
(Cory.)

Ent. 203 f. **Insect Morphology (2-4)**—Two lectures; and laboratory work by special arrangement, to suit individual needs.

Insect anatomy with special relation to function. Given particularly in preparation for work in physiology and other advanced studies.
(Snodgrass.)

Ent. 204 y. **Economic Entomology (6)**—Three lectures. Studies of the principles underlying applied entomology, and the most significant advances in all phases of entomology.
(Cory.)

Ent. 205 s. **Insect Ecology (2)**—One lecture; one laboratory.

A study of the fundamental factors involved in the relationship of insects to their environment. Emphasis is placed on the insect as a dynamic organism adjusted to the environment.
(Langford.)

FARM FORESTRY

PROFESSOR BESLEY.

For. 1 s. **Farm Forestry (3)**—Two lectures; one laboratory. Alternate year course. Junior and senior years. Prerequisite, Bot. 101 f.

A study of the principles and practices involved in managing woodlands on the farm. The course covers briefly the identification of trees; forest protection; management, measurement, and utilization of forest crops; nursery practice; and tree planting. The work is conducted by means of lectures and practice in the woods.

GENETICS

PROFESSOR KEMP.

For Advanced Undergraduates and Graduates

Gen. 101 f. **Genetics (3)**—Three lectures.

A general course designed to give an insight into the principles of genetics, or of heredity, and also to prepare students for later courses in the breeding of animals or of plants.

Gen. 102 s. **Advanced Genetics (2)**—Two lectures. Prerequisite, Gen. 101 f.

A consideration of chromosome irregularities and other mutations, interspecies crosses, identity and nature of the gene, genetic equilibrium, statistical significance of genetic phenomena.

For Graduates

Gen. 201 f and s. **Plant Breeding.** Credit according to work done.

GEOLOGY

PROFESSOR ———.

Geol. 1 f. **Geology (3)**—Two lectures; one laboratory.

A textbook, lecture, and laboratory course, dealing with the principles of geology and their application to agriculture. While this course is designed primarily for agriculture students in preparation for technical courses, it may also be taken as part of a liberal education.

HISTORY

PROFESSORS BAKER-CROTHERS, STRAKHOVSKY; ASSOCIATE PROFESSOR HIGHBY; ASSISTANT PROFESSOR THATCHER; MR. SILVER, DR. DOZER, DR. PRANGE; MR. WORTHINGTON.

H. 1 y. **A Survey of Western Civilization (6)**—One lecture and two recitations a week. This course for freshmen; is open to upperclassmen with the permission of the instructor and with reduced credit.

A general course covering the broad movements of European History which contributed to the formation of modern institutions. The aim of

the course is to make the student cognizant of the present trends in this changing world.

H. 2 y. American History (6)—One lecture and two recitations a week. This course is open to sophomores and upperclassmen.

This course treats American History from the discovery of the New World to the present time.

H. 3 y. History of England and Great Britain (6)—One lecture and two recitations each week. This course is open to freshmen and sophomores, and to upperclassmen only with the permission of the instructor but with reduced credit.

It is a survey course of English history from earliest times to the World War.

For Advanced Undergraduates and Graduates

H. 101 y. American Colonial History (6)—Three lectures. Prerequisite, H. 2 y.

A study of the political, economic, and social development of the American people from the discovery of America through the formation of the constitution. (Baker-Crothers.)

H. 102 f. The United States from the Civil War to 1900 (3)—Three lectures. Prerequisite, H. 2 y, or its equivalent.

Selected topics intended to provide a historical basis for an understanding of problems of the present century. (Thatcher.)

H. 103 s. The United States in the Twentieth Century (3)—Three lectures. Prerequisite, H. 2 y, or its equivalent.

A historical study of the more important problems of the present century. (Thatcher.)

H. 104 f, 105 s. Social and Economic History of the United States (3, 3)—Three lectures. Prerequisite, H. 2 y, or its equivalent.

First semester, an advanced course giving a synthesis of American life from 1607 to 1790. (Baker-Crothers.)

Second semester, the period from 1790 to 1860 is covered.

H. 106 f, 107 s. Diplomatic History of the United States (2, 2)—Two lectures. Prerequisite, H. 2 y.

A study of American foreign policy. (Thatcher.)

H. 108 y. Constitutional History of the United States (6)—Three lectures. Prerequisite, H. 2 y.

A study of the historical forces resulting in the formation of the constitution, and of the development of American constitutionalism in theory and practice thereafter. (Thatcher.)

H. 110 f, 111 s. History of the United States, 1789-1865 (2, 2)—Two lectures. Prerequisite, H. 2 y.

The history of national development to the end of the Civil War. (Thatcher.)

H. 112 f, 113 s. History of Maryland (2, 2)—Two lectures. Prerequisite, H. 2 y.

A survey of the political, social, and economic progress of Maryland as colony and state. (Dozer.)

H. 115 f. Medieval History (2)—Two lectures. Prerequisite, H. 1 y.

A brief survey of the Medieval period with special emphasis on the legacy of the Middle Ages. (Not given in 1939-40) (Prange.)

H. 117 s. Renaissance and Reformation (2)—Two lectures. Prerequisite, H. 1 y. (Not given in 1939-40.)

A brief survey of the Renaissance and Reformation. (Prange.)

H. 119 f. Seventeenth and Eighteenth Century Europe (2)—Two lectures. Prerequisite, H. 1 y or H. 3 y.

A study of the political, economic, social, and intellectual ferment of the "Age of Reason." (Not offered in 1939-40.) (Silver.)

H. 120 s. Revolutionary and Napoleonic Europe (2)—Two lectures. Prerequisite, H. 1 y or H. 3 y.

A study of the French Revolution and the relation of Revolutionary France with the rest of Europe, 1789-1815. (Not offered in 1939-40.) (Silver.)

H. 121 f, 122 s. Expansion of Europe (3, 3)—Three lectures. Prerequisite, H. 1 y or H. 3 y.

A treatment of European History from the Crusades to the present, emphasizing especially the expansion of national states. (Silver.)

H. 123 f, 124 s. Diplomatic History of Europe since 1871 (3, 3)—Three lectures. Prerequisite, H. 1 y.

A study of European alliances and alignments, World politics and imperialism in the pre-World War period, and developments since the World War. (Not offered in 1939-40.) (Strakhovsky.)

H. 127 f. Europe since 1815 (3)—Three lectures and assignments. Prerequisite, H. 1 y.

An intensive course in European history from 1815 to the present time. (Not given in 1939-40.) (Strakhovsky.)

H. 128 s. Present Day Europe (3)—Three lectures and assignments. Prerequisite, H. 1 y.

This course is a continuation of H. 127 f. (Not given in 1939-40.) (Strakhovsky.)

H. 129 f, 130 s. Ancient History (2, 2)—Two lectures.

A general survey course—the Near East, Greece and Rome. (Highby.)

H. 131 f, 132 s. Latin American History (2, 2)—Two lectures. Prerequisite, H. 1 y or H. 2 y.

First semester, a survey of the history of Latin American states through the colonial period to the wars of independence. (Dozer.)

Second semester, a survey of the history of the Latin American states from the wars of independence to the present with special emphasis upon Argentine, Brazil, Chile, and Mexico and upon their relations with the United States. (Dozer.)

H. 134 f, 135 s. History of Central Europe (3, 3)—Three lectures. Prerequisite, H. 1 y.

A history of Central Europe from the Reformation to the present. Special emphasis will be placed on Germany, Austria and France. (Prange.)

H. 136 f, 137 s. A History of Eastern Europe (3, 3)—Three lectures. Prerequisite, H. 1 y. This course covers the development of Russia, Poland, Rumania, and the Baltic States from their national origins to the present day with special emphasis on the contribution of these people to our modern civilization. (Strakhovsky.)

For Graduates

H. 200 y. Research (2-4)—Credit proportioned to the amount of work. (Staff.)

H. 201 y. Seminar in American Colonial History (4)—Conferences and reports on related topics. (Baker-Crothers.)

H. 202 f. American Historical Bibliography and Criticism (2). (Staff.)

H. 203 s. European Historical Bibliography and Criticism (2). (Staff.)

H. 204 y. Seminar in European History (4). (Strakhovsky.)

HOME ECONOMICS

PROFESSORS MOUNT, MCFARLAND, WELSH; ASSISTANT PROFESSORS CURTISS, KIRKPATRICK; MISS BARNES, MISS KESSINGER, MISS BRYANT.

Home Economics Lectures

H. E. 1y. Home Economics Lectures (2)—One recitation.

Lectures, demonstrations, group and individual discussions on grooming, personality development, personal adjustments, health, and social usage. (Staff.)

Textiles, Clothing, and Art

H. E. 11 s. Clothing (3)—Three laboratories. Use of commercial patterns; construction of 3 garments according to modern methods; study of clothing expenditures. Fee, \$2.50. (Kessinger.)

H. E. 21 f and s. Design (3)—One recitation; two laboratories. Elements of design; application of design principles to daily living; practice in designing. Fee, \$1.00.

H. E. 24 f. Costume Design (3)—One recitation; two laboratories. Prerequisite, H. E. 21 s or equivalent.

A study of fundamentals underlying taste, fashion, and design as they relate to the expression of individuality in dress. Fee, \$1.00. (McFarland.)

H. E. 25 s. Crafts (2)—Two laboratories. Creative art expressed in clay modeling, plastic carving, metal working, paper mache modeling, etc. Emphasis laid upon inexpensive materials and tools and simple technic. Fee, \$3.00. (Not given in 1939-1940.) (Curtiss.)

H. E. 71 f and s. Textiles (3)—Two recitations; one laboratory. History of textile fibers, their source, production, manufacture, characteristics, identification, and use. Collection and analysis of new materials; regulations governing standardization; selection of men's, women's, and children's ready-to-wear garments; care, cleaning, and storage of clothing and furs. Fee, \$2.00 per semester. (Kessinger.)

Courses for Advanced Undergraduates and Graduates

H. E. 111 f. Advanced Clothing (3)—Three laboratories. Prerequisite, H. E. 11 s and H. E. 24 f, or equivalent.

Draping of garments in cloth on dress form, stressing style, design, and suitability to the individual. Fee, \$3.00.

H. E. 112 s. Problems in Clothing (3)—Three laboratories. Prerequisite, H. E. 11 f, H. E. 111 f. (McFarland, Curtiss.)

Clothing renovation, clothing for children, and an individual clothing project. Fee, \$3.00. (Kessinger.)

H. E. 171 s. Advanced Textiles (3)—One recitation; two laboratories. Prerequisite, H. E. 71 f.

The study of the production of textile fibers; the manufacture of fabrics and their relationship to the consumer; textile microscopy; reports on assigned readings in current literature on textiles. Fee, \$3.00. (Kessinger.)

H. E. 172 f. Problems in Textiles (4)—One recitation; three laboratories. Prerequisite, H. E. 171 f.

Testing and experimental work in textiles. Fee, \$3.00. (Kessinger.)

Art

H. E. 121 f, 122 s. Interior Decoration (3, 3)—First semester, one recitation, two laboratories; second semester, three laboratories. Prerequisite, H. E. 21 s or equivalent.

Study of traditional styles and design principles with relation to personalities in home planning and furnishing; trips to historic buildings; special merchandise lectures showing what the market provides. In second semester floor plans and wall elevations drawn to scale. Fees, first semester, \$2.00; second semester, \$1.00. (Curtiss.)

H. E. 123 f, 124 s. **Advanced Design (3, 3)**—Three laboratories. Prerequisite, H. E. 122 s and H. E. 111 f, or equivalent.

Professional aspects of costume or interior design; contact with commercial establishments. Design expressed in various mediums. Students may choose one of the two fields listed as follows:

(a) *Advanced Costume Design*—Designing of costumes on paper and in cloth; a study of garment merchandising including fashion illustration, shop display, and other phases of promotional work.

(b) *Interior Design*—Designing of rooms, including interior architecture, furniture, fabrics, accessories; arrangement of display rooms in stores. Elevation and perspective drawing to scale. Fee, \$3.00 per semester. (Curtiss.)

H. E. 125 s. **Merchandise Display (2)**.

Practice in effective display of merchandise for windows, show cases, and other parts of store interiors. Cooperation with retail establishments. Prerequisite, Design H. E. 21 s or equivalent. Fee, \$3.00. (Curtiss.)

Foods and Nutrition

H. E. 31 y. **Foods (6)**—One recitation; two laboratories. Prerequisite, Chem. 1 y.

Composition, selection, and preparation of food, with a study of the scientific principles involved; analysis of recipes and study of standard products. Fee, \$7.00 per semester. (Barnes and Kirkpatrick.)

H. E. 32 f. **Elements of Nutrition (3)**—Three recitations.

A study of normal nutritional needs; the relation of food to health; planning of adequate dietaries for adults. (Welsh.)

For Advanced Undergraduates

H. E. 131 f. **Nutrition (3)**—Three recitations. Prerequisites, H. E. 31 y and Chem. 12 A y.

A scientific study of principles of human nutrition. (Welsh.)

H. E. 132 s. **Dietetics (3)**—Two recitations; one laboratory. Prerequisite H. E. 131 f.

A study of food selection for health; planning and calculating dietaries for adults and children. Fee, \$2.00. (Welsh.)

H. E. 133 f and s. **Demonstrations (2)**—Two laboratories.

Practice in demonstrations. Fee, \$7.00 per semester. (Welsh and Barnes.)

H. E. 134 f and s. **Advanced Foods (3)**—One recitation; two laboratories. Prerequisite, H. E. 31 y. Fee, \$7.00 per semester.

Advanced study of manipulation of food materials. (Welsh.)

H. E. 135 f and s. **Experimental Foods (4)**—Two recitations; two laboratories. Prerequisites, H. E. 31 y, H. E. 137 s, Chem. 12 A y.

A study of food preparation processes from experimental viewpoint. Practice in technics. Fee, \$7.00 per semester. (Kirkpatrick.)

H. E. 136 s. **Child Nutrition (2)**—Two recitations.

Lectures and discussions relating to the principles of child nutrition. (Welsh.)

H. E. 137 f and s. **Food Buying and Meal Service (3)**—One recitation; two laboratories. Prerequisite H. E. 31 y.

Study of problems in food buying; planning and service of meals for the family group, including simple entertaining in relation to nutritional needs and cost. Fee, \$7.00 per semester. (Barnes and Kirkpatrick.)

H. E. 138 s. **Diet in Disease (3)**—One recitation; two laboratories. Prerequisite, H. E. 131 f.

Modification of the principles of human nutrition to meet dietary needs of certain diseases. Fee, \$3.00. (Barnes.)

For Graduates

H. E. 201 f or s. **Seminar in Nutrition (2)**.

Oral and written reports on current literature on nutrition. (Welsh, Barnes.)

H. E. 202 f or s. **Research**.—Credit to be determined by amount and quality of work done.

With the approval of the head of the department, the student may pursue an original investigation in some phase of foods. The result may form the basis of a thesis for an advanced degree. (Welsh.)

H. E. 203 f or s. **Advanced Experimental Foods (3)**—One recitation; two laboratories.

Individual experimental problems. Special emphasis on use of Maryland products. Fee, \$7.00. (Kirkpatrick.)

H. E. 204 f. **Readings in Nutrition (2)**—Two recitations.

Reports and discussions of outstanding nutritional research and investigations. (Welsh.)

H. E. 205 f or s. **Nutrition (3)**—One recitation; laboratory by arrangement.

Feeding experiments are conducted on laboratory animals to show effects of diets of varying compositions. (Welsh.)

Home and Institution Management

H. E. 141 f, 142 s. **Management of the Home (3, 3)**—Two lectures; one laboratory.

The family and human relations; household organization and management; budgeting of time and money. Housing as a social problem; federal

and civic housing projects; housing standards for the family; building and financing a home. Selection and care of household equipment and furnishings. (Welsh.)

H. E. 143 f or s. Practice in Management of the Home (3).

Experience in operating and managing a household composed of a member of the faculty and a small group of students for approximately one-third of a semester. Fee, \$4.00. (Bryant.)

H. E. 144 y. Institution Management (6)—Three recitations.

The organization and management of food service in hospitals, clubs, schools, cafeterias, and restaurants; management of room service in dormitories; organization of institution laundries. Institutional accounting and purchasing. (Mount, Bryant.)

H. E. 145 f. Practice in Institution Management (4)—Prerequisite, H. E. 144 y.

Practice work in one of the following: the University dining hall, a tea room, hospital, cafeteria, or hotel. (Barnes.)

H. E. 146 s. Advanced Institution Management (3)—Prerequisite, H. E. 144 y. One recitation weekly and individual conferences with the instructor. Special problems in institution management. (Barnes.)

H. E. 147 f. Institution Cookery (3)—One recitation; two laboratories. Prerequisites, H. E. 31 y, H. E. 137 s, H. E. 144 y.

Application of principles of food preparation to cookery for institutions; study of standard technics; menu planning and costs; use of institutional equipment; practice in cafeteria counter service.

Home Economics Extension

H. E. 151 s. Methods in Home Economics Extension (3)—Given under the direction of Venia M. Kellar and specialists.

HORTICULTURE

PROFESSORS SCHRADER, MAHONEY, THURSTON, WALLS; ASSOCIATE PROFESSORS HAUT, LINCOLN, SHOEMAKER; ASSISTANTS CHASE, STIER, SHUTAK.

Hort. 1 f, 2 s. General Horticulture (3, 3)—Two lectures and one laboratory.

An introductory course, discussing the several phases of horticulture in a systematic survey of the problems of horticulture and practical means of solution.

First semester. Fruits and vegetables.

Second semester. Flowers, ornamental plants, propagation, and landscape gardening. First semester not a prerequisite.

Hort. 3 f. Fruit Production (2 or 4)—One or two lectures and one or two laboratories.

The practical application of the principles of fruit growing as related to climatic conditions, soil and water requirements, selection of sites, systems of planting, varieties, pruning, pollination, harvesting, washing, grading, and other pertinent problems.

One laboratory is devoted to apple variety identification and judging. A fruit judging team is selected to compete in the Eastern States Intercollegiate Fruit Judging League.

A laboratory must be taken with a lecture, or two laboratories with two lectures.

Hort. 4 s. Vegetable Production (2 or 4)—Two lectures; two laboratories.

A study of the fundamental principles underlying all garden practices. The laboratory work is organized from the point of view of the home garden and commercial truck garden. Special studies are made of vegetable seed identification, methods of growing plants, garden planning, pest control, etc.

Hort. 5 f. Greenhouse Construction and Management (3)—Two lectures; one laboratory.

A detailed consideration of various types of houses and their management; location with respect to sites and markets; arrangement, construction, and costs of building and operation; practical methods of handling greenhouses under various conditions. (Given in alternate years; not offered in 1939-1940.)

Hort. 6 s. Greenhouse Management (3 or 4)—Two or three lectures; one laboratory. A continuation of Hort. 5 f. No prerequisite. (Not given in 1939-1940.)

Hort. 7 s. Small Fruits (2-3)—Two lectures; one laboratory. Lectures can be taken without laboratory.

A study of the principles and practices involved in the production of the small fruits including grapes, strawberries, raspberries, blueberries, blackberries, cranberries, etc. Plant characteristics, varieties, propagation, site and soils, planting, soil management, fruiting habits, pruning, fertilizers, harvesting, and marketing receive consideration.

Hort. 8 f. Garden Flowers (3)—Two lectures; one laboratory.

Plants for garden use; the various species of annuals, herbaceous perennials, bulbs, bedding plants, and roses and their cultural requirements. (Given in alternate years; not offered in 1939-1940.)

Hort. 9 y. Commercial Floriculture (6-7)—Two lectures; one or two laboratories. Prerequisite, Hort. 5 f and 6 s.

Methods of handling florist's bench crops and potted plants, the marketing of cut flowers, the retail business, and floral design and decoration. Trips to important commercial centers and flower shows will be made.

Hort. 10 f. Landscape Gardening (2)—Two lectures.

The theory and general principles of landscape gardening and their application to private and public areas. Special consideration is given to the improvement and beautification of the home grounds, farmsteads, and small suburban properties. Adapted to students not intending to specialize in landscape, but who wish some theoretical and practical knowledge of the subject.

Hort. 11 f. Landscape Design (3)—One lecture; two laboratories.

A consideration of the principles of general landscape design and practice in drafting technique, field work, and preparation of simple landscape plans.

Hort. 12 s. Landscape Design (2)—Two laboratories. Prerequisite, Hort. 11 f.

The design of private grounds and gardens and of architectural details used in landscape compositions; planting plans; analytical study of plans of practicing landscape architects; field observation of landscape developments.

Hort. 13 s. Civic Art (2)—Two lectures.

Principles of city planning and their application to village and rural improvement, including problems in design of civic centers, parks, school grounds, and other public and semi-public areas. (Given in alternate years; not offered in 1939-1940.)

Hort. 14 y. Seminar (2).

Designed to give training in the interpretation, condensation, and oral presentation of the results of investigational work by reviewing recent scientific literature in the various phases of horticulture.

Hort. 15 y. Special Problems (2-4).

An advanced student in any of the divisions of horticulture may select a special problem for study. This may be either the summarizing of all the available knowledge on a particular problem or the investigation of some new problem. Where original investigation is carried on, the student should in most cases start the work during the junior year.

Hort. 16 f or s. Methods of Commercial Processing of Horticultural Crops (4)—Three lectures; one laboratory.

The fundamentals of canning and freezing horticultural crops: maturity studies; harvesting methods, including threshing of peas and lima beans; grades and grading of raw products; preparation for processing or freezing, such as washing, sizing, and blanching; methods of processing and freezing, and storage of frosted foods. Open only to juniors and seniors in Agriculture, Home Economics, and Bacteriology. (Given in alternate years; not offered in 1939-40.)

For Advanced Undergraduates

Hort. 101 f or s. Technology of Horticultural Plants (Fruits). (4)—Four lectures.

A critical analysis of detailed studies on horticultural plants in relation to application to practice. An interpretation of horticultural knowledge, based on principles of physiology, chemistry, and other sciences. A study of underlying principles involved in growth, fruiting, storage, and quality of horticultural plants and products. (Haut.)

Hort. 102 f or s. Technology of Horticultural Plants (Vegetables) (4)—Four lectures. This course is described under Hort. 101. (Mahoney.)

Hort. 103 f or s. Technology of Horticultural Plants (Ornamentals) (2)—Two lectures. This course is described under Hort. 101. (Haut.)

Hort. 104 S. Systematic Pomology (3)—Two lectures; one laboratory.

A study of the origin, history, taxonomic relationships, description, pomological classification and identification of tree and small fruits. (Given in alternate years; not offered in 1939-40.) (Haut.)

Hort. 105 S. Systematic Olericulture (3)—Two lectures; one laboratory.

A study of the classification and nomenclature of vegetable crops and the description and identification of varieties. The adaptation of varieties to different environmental conditions and their special uses in vegetable production. (Walls.)

Hort. 106 s. World Fruits and Nuts (2)—Two lectures. Designed for students in Commerce, Agricultural Economics, and Home Economics.

A study of the tropical and subtropical fruits and nuts of economic importance. The orange, lemon, grapefruit, pineapple, banana, date, fig, olive, avocado, papaya, mango, walnut, pecan, almond, filbert, tung nut, Brazil nut, cashew, and cocoanut receive consideration. Special emphasis is placed upon the botanical relationships, composition, varieties, climatic and cultural requirements, methods and problems of production, and the development and present commercial status of those grown in the United States and its possessions. (Haut.)

Hort. 107 y. Plant Materials (5)—One lecture; one or two laboratories.

A field or laboratory study of trees, shrubs, and vines used in ornamental planting. (Thurston.)

Hort. 108 f or s. Canning Crops Technology (3)—Two lectures; one laboratory. Prerequisites, senior standing, Hort. 16 and Plt. Phys. 101.

A course dealing with the more technical physico-chemical methods used in the study of the fundamentals of factors influencing the quality of raw products, physiological processes prior to and after blanching, grade of processed product. In addition, studies will be made of new types of equipment and recent research on methods of processing. Visits to canning plants and commercial laboratories will be required. (Given in alternate years; not offered in 1939-40.) (Mahoney, Walls.)

For Graduates

Hort. 201 y. Experimental Pomology (4)—Two lectures.

A systematic study of the sources of knowledge and opinion as to practices in pomology; methods and difficulties in experimental work in pomology and results of experiments that have been or are being conducted in all experiment stations in this and other countries. (Schrader.)

Hort. 202 y. Experimental Olericulture (4)—Two lectures.

A systematic study of the sources of knowledge and opinion as to practices in vegetable growing; methods and difficulties in experimental work in vegetable production and results of experiments that have been or are being conducted in all experiment stations in this and other countries. (Mahoney.)

Hort. 203 s. Experimental Pomology (2)—Two lectures.

A continuation of Hort. 201 y. (Schrader.)

Hort. 203 f. Experimental Olericulture (2)—Two lectures.

A continuation of Hort. 202 y. (Mahoney.)

Hort. 204 f or s. Methods of Horticultural Research (2)—One lecture; one laboratory.

Methods in use by horticultural research workers in the U. S. and foreign countries are discussed in detail, critically evaluating such methods for use in solving present problems. Discussion of photographic technique, application of statistical procedures, physical measurements, plot designs, survey methods, and experimental materials will be emphasized.

Hort. 205 y. Advanced Horticultural Research (4, 6, or 8)—Credit given according to work done.

Graduate students will be required to select problems for original research in pomology, vegetable gardening, or floriculture. These problems will be continued until completed and final results will be in the form of a thesis. (Staff.)

Hort. 206 f and s. Advanced Horticultural Seminar (1).

Oral reports with illustrative material are required on special topics or recent research publications in horticulture. Discussion by the students and staff members during and after each report is an essential part of the seminar. The aim of this course is to develop ability to analyze and to present research results orally as well as to review recent advances in horticulture.

LIBRARY SCIENCE

MR. HINTZ, MR. FOGG, MR. ZIEGAUS.

L. S. 1 f or s. Library Methods (1)—Freshman Year.

This course is intended to help students use libraries with greater facility and effectiveness. Instruction, given in the form of lectures and practical work, is designed to interpret the library and its resources to the student.

The course considers the classification of books in libraries, the card catalog, periodical literature and indexes, and certain essential reference books which will be found helpful throughout the college course and in later years.

MATHEMATICS

PROFESSORS T. H. TALIAFERRO, DANTZIG; ASSOCIATE PROFESSORS YATES, MARTIN; ASSISTANT PROFESSOR TITT; DR. ALRICH, DR. LANCASTER; MR. VOLCKHAUSEN, MRS. PLASS, MR. SCOTT, MR. CRAMER, MR. MATTINGLY, MR. WAGNER, MR. ASH, MR. WILSON.

Math. 7 f. Solid Geometry (2)—Two lectures. Prerequisite, plane geometry. College credit given only to students in the College of Education. Open without credit to students desiring to enter the College of Engineering and to students who expect to major in mathematics or physics who have had no opportunity to take the subject in high school.

Lines and planes; cylinders and cones; the sphere; polyhedra.

Math. 8 f and s. Algebra (3)—Three lectures. Prerequisite, one year of high school algebra. Required of students of biology, premedical and pre dental students who have not sufficient preparation to enter Math. 11 f. Open without credit to students of engineering, chemistry, physics, and mathematics who lack the required preparation for Math. 21 f.

Quadratic equations; polynomials and their graphs; elementary theory of equations; progressions; binomial theorem; logarithms; permutations and combinations.

Math. 10 s. Plane Trigonometry and Analytic Geometry (3)—Three lectures. Prerequisite, Math. 8 f or 11 f. Required of students of biology; premedical and pre dental students.

Trigonometric identities; equations and graphs; principles of plane analytic geometry; line and circle; ellipse, parabola, hyperbola; other plane curves; graphing of empirical equations.

Math. 11 f and s. Algebra (3)—Three lectures. Prerequisite, high school algebra completed. Required of students of biology; of premedical and pre dental students.

Simultaneous solution of quadratic and higher equations; properties of polynomials; theory of equations; binomial expansion; progressions; combinatorial analysis; logarithms; empirical equations; determinants.

Math. 18 y. Geometrical Drawing and Modeling (2)—One laboratory. Required of students whose major is mathematics, and of students in the College of Education with mathematics as their major.

Problems in geometrical construction, in projective geometry, in geometrical optics; mechanical generation of curves.

Math. 19 y. Advanced Geometrical Drawing and Modeling (2)—One laboratory. Prerequisite, Math. 18 y. Required of students whose major is mathematics, and of students in the College of Education with mathematics as their major.

Elements of descriptive geometry; projections of skew curves and sections of surfaces; construction of models of space configurations.

Math. 20 y. General Mathematics (6)—Three lectures. Primarily intended for students of economics and the social sciences. Required of all students in Business Administration. Prerequisite, one year of high school algebra.

Principles of algebra, trigonometry, analytic geometry; mathematics of finance; quadratic and higher equations; progressions and logarithms; compound interest and annuities; permutations and combinations; probabilities; graphing of algebraic and trigonometric functions; construction and interpretation of graphs; interpolation and approximation methods; rudiments of the calculus; introduction to statistical methods.

Math. 21 f and s. College Algebra (4)—Three lectures and one laboratory. Prerequisite, high school algebra completed. Required of all students in the College of Engineering; of students whose major is mathematics, physics, or chemistry; of students in the College of Education who elect mathematics as their major or minor.

Foundations of algebra; binomial and multinomial expansions; progressions; determinants; elements of the theory of numbers; combinatorial analysis and probabilities; complex numbers; theory of equations; exponential functions and logarithms.

Math. 22 s. Analytic Geometry (4)—Three lectures and one laboratory. Prerequisite, Math. 21 f. Required of all students in the College of Engineering; of students whose major is mathematics, physics, or chemistry; of students in Education who elect mathematics as their major or minor.

Principles of trigonometry; Cartesian and polar coordinates; line and circle; curves of the second order; higher algebraic and transcendental curves; periodograms; solid analytics and spherical trigonometry.

Math. 23 y. Calculus (8)—Three lectures and one laboratory. Prerequisites, Math. 10 s or 22 s. Required of all students in the College of Engineering; of students with a major in mathematics, physics, or chemistry; of students in the College of Education who elect mathematics as their major or minor.

Limits, derivatives, and differentials; maxima and minima; curvature; evolutes; envelopes; elements of curve theory; elementary theory of functions; partial derivatives. Indefinite and definite integrals; multiple integrals; calculation of arcs, areas, volumes, and moments; expansion in series; differential equations.

Math. 24 y. Elementary Mathematical Analysis (6)—Three lectures. Prerequisite, Math. 8 f and 10 s, or Math. 20 y.

A survey course in the differential and integral calculus, intended primarily for students of the biological, economical, and social sciences. Special emphasis will be laid on graphical analysis, empirical laws, statistical interpretation, etc.

For Advanced Undergraduates and Graduates

Math. 111 f. Elementary Mathematics from an Advanced Standpoint (2)—Two lectures.

A survey course in high school mathematics intended for workers in biological and social sciences, and for prospective teachers of mathematics and physics. (Dantzig.)

Math. 112 s. College Mathematics (2)—Two lectures. Prerequisite, Math. 111 f or 8 f, or equivalent courses.

A survey course of analytic geometry, and the calculus, intended for workers in the biological sciences and for prospective teachers of high-school mathematics and physics. (Dantzig.)

Math. 114 f. Differential Equations for Engineers (3)—Three lectures.

This course is conducted in close cooperation with the College of Engineering, and deals with aspects of mathematics which arise in engineering theory and practice. Among the topics treated are the following: linear differential equations; advanced methods in kinematics and dynamics; applications of analysis to electrical circuits, to aero-dynamics, bridge-design, etc. (Titt, Lancaster.)

Math. 115 s. Applied Calculus for Chemists (3)—Three lectures. Prerequisite, Math. 23 y.

This course is conducted in close cooperation with the Chemistry Department, and deals with the aspects of mathematics which arise in the theory and practice of chemistry. Among the topics treated are the following: partial and total derivatives; applications of mathematical analysis to thermo-dynamics, to molecular and atomic phenomena, and to physical chemistry. (Lancaster.)

Math. 116 f. Advanced Trigonometry (2)—Two lectures. Prerequisite, Math. 23 y or its equivalent.

Complex numbers; De Moivre, Euler and allied identities; trigonometric series and infinite products; graphing of periodic functions; hyperbolic trigonometry; trigonometric solution of equations; principles of spherical trigonometry. (Dantzig.)

Math. 122 s. History of Elementary Mathematics (2)—Two lectures.

History of arithmetic, algebra and geometry. (Dantzig.)

Math. 131 f. Analytical Mechanics (2)—Two lectures. Prerequisite, Math. 23 y.

Kinematics; the dynamics of a particle; statics; the principles of D'Alembert; the dynamics of a system; the equations of Lagrange and Jacobi; the principle of Hamilton. (Yates.)

Math. 132 s. Theory of Probabilities and Least Squares (2)—Two lectures. Prerequisite, Math. 23 y.

Frequency and probability; the concept of "equally likely"; combinatorial analysis; addition and multiplication theorems; frequency of distribution; continuous probabilities; applications to statistics, theories of errors and correlations, and to molecular theories. (Titt.)

Math. 140 y. Mathematical Seminar (2)—One Session.

Required of students whose major is mathematics; also of graduate students. This course is intended as a clearing house of problems which arise in the undergraduate courses in mathematics. (Staff.)

Math. 141 f. Higher Algebra (2)—Two lectures. Prerequisite, Math. 23 y.

Identities; multinomial expansion; combinatorial analysis; mathematical induction; undetermined coefficients; determinants; elementary theory of equations; complex magnitudes. (Alrich.)

Math. 142 s. Higher Algebra (2)—Two lectures. Prerequisite, Math. 141 f or its equivalent.

Inequalities; continued fractions; summation of series; difference equations; theory of numbers; diophantine equations. (Alrich.)

Math. 143 f. Advanced Calculus (2)—Two lectures. Prerequisite, Math. 23 y.

General methods of integration; multiple integration with physical applications; partial differentiation; geometrical and physical applications; mean value theorem; Jacobians; envelopes. (Martin.)

Math. 144 s. Advanced Calculus (2)—Two lectures. Prerequisite, Math. 143 f or its equivalent.

Elliptic integrals; line integrals; Green's theorem; equation of continuity; applications to hydrodynamics. (Martin.)

Math. 145 f. Advanced Plane Analytic Geometry (2)—Two lectures. Prerequisite, Math. 23 y.

Homogeneous coordinates; advanced theory of conic sections; Plücker characters of algebraic curves; cubic and quartic curves; Cremona transformations. (Dantzig.)

Math. 146 s. Solid Analytic Geometry (2)—Two lectures. Prerequisite, Math. 145 f or its equivalent.

General theory of quadric surfaces; the twisted cubic; line geometry; geometry on a sphere; cubic and quartic surfaces. (Dantzig.)

Math. 151 f. Theory of Equations (2)—Two lectures. Prerequisite, 142 f or its equivalent.

Complex numbers; fundamental theorem of algebra; equations of the third and fourth degree; algebraic solution of equations; finite groups; numerical solution of equations; criteria of irreducibility; cyclometric equations. (Lancaster.)

Math. 152 s. Introduction to Modern Algebra (2)—Two lectures. Prerequisite, Math. 141 f and 142 s or their equivalent.

Vectors; matrices; linear dependence; quadratic forms; infinite groups. (Titt.)

Math. 153 f. Advanced Differential Equations (2)—Two lectures. Prerequisite, Math. 144 or its equivalent.

Equations of the first order; linear equations with constant and variable coefficients; change of variables; singular solutions; solution in series; numerical integration; ordinary differential equations in three variables; partial differential equations. (Martin.)

Math. 154 s. Topics in Analysis (2)—Two lectures. Prerequisite, Math. 153 f.

Theory of vibrations; Fourier series; calculus of variations; entropy; improper integrals. (Titt.)

Math. 155 f. Introduction to Projective Geometry (2)—Two lectures. Prerequisite, Math. 145 f or its equivalent.

The theorems of Desargues and Pappus; cross-ratio and homography; projective theory of conics; projective interpretation and generalization of elementary geometry. (Dantzig.)

Math. 156 s. Introduction to Differential Geometry (2)—Two lectures. Prerequisite, Math. 23 y.

Infinitesimal properties of plane curves; transformations; orthogonal trajectories; envelopes; roulettes and glissettes; curvilinear coordinates in the plane. (Dantzig.)

Math. 157 y. History of Modern Mathematics (4)—Two lectures. Prerequisite, Math. 23 y, or its equivalent.

This course will begin with a comprehensive treatment of the history of mathematics during the seventeenth and eighteenth centuries; the development of mathematics during the nineteenth and our own centuries will be treated topically, with special emphasis on such topics as projective and non-Euclidean geometry, theory of aggregates, vector analysis, theory of groups, theory of numbers, etc. (Dantzig.)

For Graduates

Math. 221 f. Theory of Functions of a Complex Variable (2)—Two lectures. Prerequisites, Math. 143 f and 144 s or their equivalent.

Cauchy-Riemann equations; power series and infinite products; conformal mapping; the Cauchy integral theorem; residues and periods; analytic continuation. (Martin.)

Math. 222 f. Theory of Functions of a Real Variable (2)—Two lectures. Prerequisites, Math. 143 f and 144 s or their equivalent.

Real numbers; continuous functions; implicit functions; Riemannian integration; real analytic functions. (Martin.)

Math. 223 s. Vector Analysis (2)—Two lectures. Prerequisite, Math. 152 s or its equivalent.

Scalars, vectors, matrices and determinants; transformations; linear dependence, canonical forms; applications to geometry and mechanics. (Dantzig.)

Math. 225 f. Projective Geometry (2)—Two lectures. Prerequisite, Math. 155 f or its equivalent.

Axiomatic development of geometry; fundamental theorems; projective equivalence; the group of collineations in the plane and in space; non-Euclidean geometries. (Dantzig.)

Math. 226 s. Differential Geometry (2)—Two lectures. Prerequisite, Math. 156 s or its equivalent.

Principles of vector analysis; skew curves; kinematical applications; geometry on a surface; general theory of surfaces; curvature and space structure; Riemannian geometries. (Dantzig.)

Math. 227 s. Infinite Processes (2)—Two lectures. Prerequisite, Math. 222 f or its equivalent.

Convergence of infinite series and products; Fourier series; orthogonal functions, asymptotic series. (Lancaster.)

Math. 228 s. Elliptic Functions (2)—Two lectures. Prerequisite, Math. 221 f or its equivalent.

The theories of Legendre and Jacobi; the Weierstrass theory; doubly periodic functions; elliptic integrals; applications to algebra, geometry, and mechanics. (Jocabi.)

Math. 231 s. Partial Differential Equations with Applications to Mathematical Physics (2)—Two lectures. Prerequisites, Math. 143 f, Math. 144 s, and Math. 153 f, or their equivalent.

Partial differential equations of the first and second order; linear equations; total differential equations; equations of the Monge-Ampere type; the Laplace equation; harmonics; applications to electricity, heat, elasticity, and hydrodynamics; potential theory. (Titt.)

Math. 235 s. Modern Algebra (2)—Two lectures. Prerequisite, Math. 152 s or its equivalent.

Sets; classes; groups; isomorphism; rings; fields; Galois theory; ordered and well-ordered sets; ideals; linear algebras. (Dantzig.)

Math. 240 y. Graduate Colloquium (2)—One session.

Required of all graduate students. Intended as a clearing house of problems arising in the graduate courses. Reports on progress of dissertations and a critical discussion of results achieved.

(Staff.)

SELECTED TOPICS COURSES

In addition to the preceding, a number of courses will be offered from time to time by the various members of the staff in their respective fields of specialization. These courses are intended primarily for candidates for an advanced degree, and aim at developing materials for dissertations; they will, however, be open to any qualified student.

Math. 242. Selected Topics in Modern Geometry. (Dantzig, Alrich.)

Math. 243. Selected Topics in Modern Analysis. (Martin, Lancaster.)

Math. 244. Selected Topics in Dynamics. (Martin.)

Math. 245. Selected Topics in Mathematical Physics. (Titt.)

Math. 246. Selected Topics in Applied Mathematics. (Yates.)

MILITARY SCIENCE AND TACTICS

PROFESSORS OF MILITARY SCIENCE AND TACTICS, LIEUTENANT COLONEL JOSEPH D. PATCH,* LIEUTENANT COLONEL THOMAS D. FINLEY,** ASSISTANT PROFESSORS, MAJOR CHARLES H. JONES, MAJOR S. D. HERVEY, MAJOR C. C. WESTFALL, MAJOR H. C. GRISWOLD,† CAPTAIN WILLIAM A. MAGLIN;†† SERGEANT GEORGE J. UHRINAK, SERGEANT WILLIAM H. WOOD, SERGEANT FAY J. NORRIS.

‡Basic Course

M. I. 1 y. Basic R. O. T. C. (2)—One lecture; two drill periods. Freshman Year.

First Semester: National Defense Act, including basic organization and the R. O. T. C.; military courtesy; command and leadership; military hygiene and first aid; marksmanship.

Second Semester: Physical drill; command and leadership; automatic rifle; military history and policy; military hygiene and first aid; citizenship; international situation.

M. I. 2 y. Basic R. O. T. C. (4)—One lecture; two drill periods. Sophomore Year.

First Semester: Scouting and patrolling; map reading; military history; leadership.

Second Semester: Military history; musketry; combat principles of the squad and section; leadership.

*Relieved as of July 15, 1939.

**Assigned as of July 1, 1939.

†Assigned as of August 1, 1939.

††Relieved as of August 1, 1939.

‡Required of qualified students.

##Advanced Course

M. I. 101 y. Advanced R. O. T. C. (6)—Three lectures; two drill periods. Junior Year.

First Semester: Aerial photograph reading; machine guns; howitzer weapons; combat principles; leadership.

Second Semester: Combat principles of rifle, machine gun, and howitzer platoons; pistol marksmanship; review of rifle marksmanship; leadership.

M. I. 102 y. Advanced R. O. T. C. (6)—Three lectures; two drill periods. Senior Year.

First Semester: Combat principles (including organization of larger combat units); command and leadership; weapons (tanks); chemical agents and uses; mechanization.

Second Semester: Company administration; military history and policy; military law; Officers' Reserve Corps regulations.

MODERN LANGUAGES

PROFESSORS ZUCKER, FALLS; ASSOCIATE PROFESSOR KRAMER; ASSISTANT PROFESSORS DARBY, PRAHL; MISS WILCOX, MR. SCHWEIZER, MR. LIOTARD, MR. EVANGELIST, MR. PATTON, MR. MUTZIGER, MR. BACKENSTOSS.

All students whose major is in Modern Languages are required to take *Introductory Survey of Comparative Literature* (Comp. Lit. 101f, Comp. Lit. 102s), and they are strongly advised to take the review course (French 99f, German 99f, Spanish 99f). The following courses are recommended: *General European History* (H. 1y), *Introduction to Philosophy* (Phil. 1f or 1s), *The Old Testament as Literature* (Comp. Lit. 104s), *Prose and Poetry of the Romantic Age*. (Eng. 113f and 114s), *Romanticism in France and Germany* (Comp. Lit. 105 f and 106 s). For a major in German, *Old English* and *Beowulf* (Eng. 102 f and 103 s).

Specific requirements for the majors in the different languages are as follows: French—French 9y, 10y, 15y, and three additional year-courses in literature in the 100 group; German—German 10y, 15y, and three additional year courses in the 100 group; Spanish—Spanish 6y, 15y, and three additional year-courses in the 100 group.

A. French

French 1 y. Elementary French (6)—Three lectures. Students who offer two units in French for entrance, but whose preparation is not adequate for second-year French, receive half credit for this course.

Elements of grammar; composition; pronunciation and translation.

French 2 s. Elementary Conversation (1)—One lecture. Prerequisite, the grade of A or B in the first semester of French 1 y. Students who are interested in French, and who have done well in the first semester of the

##Elective for qualified undergraduates in accordance with contract.

elementary year-course, should take this course in conjunction with the second semester of French 1 y.

French 3 y. Second-Year French (6)—Three lectures. Prerequisite, French 1 y or equivalent.

Study of grammar continued; composition; conversation; translation of narrative and technical prose. In the organization of classes, certain sections are set aside for the reading of scientific French texts.

French 4 f. Grammar Review (2)—Two lectures. Designed particularly for students who enter with three or more units in French, who expect to do advanced work in the French language or literature, but who are not prepared to take French 10 y. Properly qualified students may elect this course at the same time as French 6 y, 7 y, 8 y, 15 y.

French 5 s. Intermediate Conversation (2)—Two lectures. Prerequisite, the grade of A or B in the first semester of French 3 y. Students who expect to take advanced work in French literature, and who have completed the first semester of French 3 y with the grade of A or B, should take this course in conjunction with the second semester of French 3 y.

Practical exercises in conversation; discussion in French of simple texts in prose and verse.

French 6 y. The Development of the French Novel (6)—Three lectures.

Introductory study of the history and growth of the novel in French literature; of the lives, works, and influence of important novelists. Reports. (Not given in 1939-40.)

French 7 y. The Development of the French Drama (6)—Three lectures.

Introductory study of the French drama of the seventeenth, eighteenth, and nineteenth centuries. Translation and collateral reading. Reports.

French 8 y. The Development of the Short Story in French (6)—Three lectures.

A study of the short story in French literature; reading and translation of representative examples. (Not given in 1939-40.)

French 9 y. French Phonetics (2)—One lecture. Prerequisite, French 1 y.

French 10 y. Intermediate Grammar and Composition (6)—Three lectures. Prerequisite, French 3 y.

(French 9 y and 10 y are required of students preparing to teach French.)

French 15 y. Introduction to French Literature (6)—Three lectures. Prerequisite, French 3 y.

An elementary survey introducing the student to the chief authors and movements in French literature. This course is given in French.

French 99 f. Rapid Review of the History of French Literature (1).

Weekly lectures stressing the high points in the history of French literature. This course provides a rapid review for majors by means of a brief survey of the entire field.

For Advanced Undergraduates and Graduates

A more intensive survey of modern French literature is offered by means of rotating courses roughly divided by centuries.

French 102 y. French Literature of the 17th Century (4)—Two lectures. (Not given in 1939-40.) (Wilcox.)

French 103 y. French Literature of the 18th Century (4)—Two lectures. (Falls.)

French 104 y. French Literature of the 19th Century (4)—Two lectures. (Wilcox.)

French 105 y. French Literature of the 20th Century (4)—Two lectures. (Not given in 1939-40.) (Falls.)

French 110 y. Advanced Composition (6)—Three lectures. Prerequisite, French 10 y. This course is required of students preparing to teach French. (Falls.)

Attention is also called to Comparative Literature 105 f, *Romanticism in France*.

For Graduates

French 201 y. Research (2, 4)—Credits determined by work accomplished. (Staff.)

French 202 y. Diderot and the Encyclopaedists (4)—Two lectures. (Not given in 1939-40.) (Falls.)

French 204 y. Georges Duhamel, Poet, Dramatist, Novelist (4)—Two lectures. (Not given in 1939-40.) (Falls.)

French 205 y. French Literature of the Middle Ages and the Renaissance (4)—Two lectures. (Not given in 1939-40.) (Darby.)

French 206 f, 207 s. The French Novel in the First Half of the Nineteenth Century (2, 2)—Two lectures. (Falls.)

French 208 f, 209 s. The French Novel in the Second Half of the Nineteenth Century (2, 2)—Two lectures. (Not given in 1939-40.) (Falls.)

French 210 y. Seminar (2, 4)—One meeting weekly. (Required of all graduate students in French.)

French 212 s. Introduction to Old French (2)—Two lectures. (Darby.)

French 220 f, 221 s. Reading Course (2, 2)—One conference.

Designed to give graduate students the background of a survey of French literature. Extensive outside reading with reports and connecting lectures. (Falls.)

B. German

German 1 y. Elementary German (6)—Three lectures. Students who offer two units in German for entrance, but whose preparation is not adequate for second-year German, receive half credit for this course.

Elements of grammar; composition; pronunciation and translation.

German 2 s. Elementary Conversation (1)—One lecture. Prerequisite, the grade of A or B in the first semester of German 1 y. Students who are interested in German, and who have done well in the first semester of the elementary year-course, should take this course in conjunction with the second semester of German 1 y.

German 3 y. Second-Year German (6)—Three lectures. Prerequisite, German 1 y or equivalent.

Reading of narrative and technical prose, grammar review, and oral and written practice. In the organization of classes, certain sections are set aside for the reading of scientific German texts.

German 4 f. Grammar Review (2)—Two lectures. Designed particularly for students who enter with three or more units in German and who expect to do advanced work in the German language or literature, but who are not prepared to take German 10 y. Properly qualified students may elect this course at the same time as German 6 f or 8 f.

German 5 s. Intermediate Conversation (2)—Two lectures. Prerequisite, the grade of A or B in the first semester of German 3 y. Students who expect to take advanced work in German literature, and who have completed the first semester of German 3 y with the grade of A or B, should take this course in conjunction with the second semester of German 3 y.

Practical exercises in conversation; discussion in German of simple texts in prose and verse.

German 6 f, 7 s. Advanced German (3, 3)—Three lectures. Prerequisite, German 3 y or equivalent.

Rapid reading of novels and short stories from recent German literature. (Not given in 1939-40.)

German 8 f, 9 s. Advanced German (3, 3)—Three lectures. Prerequisite, German 3 y or equivalent.

Rapid reading of dramas from recent German literature. (Not given in 1939-40.)

German 10 y. German Grammar and Composition (4)—Two lectures. Prerequisite, German 3 y.

A thorough study of the more detailed points of German grammar with ample practice in composition work. (This course is required of students preparing to teach German.)

German 15 y. Introduction to German Literature (6)—Three lectures. Prerequisite, German 3 y or equivalent.

An elementary survey of the history of German literature; a study of representative authors and works.

German 99 f. Rapid Review of the History of German Literature (1).

Weekly lectures stressing the high points in the history of German literature. This course provides a rapid review for majors by means of a brief survey of the entire field.

For Advanced Undergraduates and Graduates

German 101 f, 102 s. German Literature of the 18th Century (3, 3)—Three lectures.

First semester, the earlier classical literature.

Second semester, the later classical literature. (Not given in 1939-40.) (Prahl.)

German 103 f, 104 s. German Literature of the 19th Century (3, 3)—Three lectures.

First semester, Romanticism and Young Germany.

Second semester, the literature of the Empire. (Prahl.)

German 105 f, 106 s. Contemporary German Literature (3, 3)—Three lectures.

A study of the lives, works, and influence of outstanding authors of the present. (Not given in 1939-40.) (Prahl.)

Attention is also called to Comparative Literature 106s, *Romanticism in Germany*, and Comparative Literature 107f, *The Faust Legend in English and German Literature*.

For Graduates

German 201 y. Research (2-4)—Credits determined by work accomplished. (Staff.)

German 202 y. The Modern German Drama (4)—Two lectures.

Study of the naturalistic, neo-romantic, and expressionistic drama against the background of Ibsen and other international figures. (Not given in 1939-40.) (Prahl.)

German 203 y. Schiller (4)—Two lectures.

Study of the life and works of Schiller, with emphasis on the history of his dramas. (Not given in 1939-40.) (Prahl.)

German 204 f. Goethe's Faust (2)—Two lectures. (Zucker.)

German 205 s. Goethe's Works Outside of Faust (2)—Two lectures. (Zucker.)

German 206 y. The Romantic Movement (4)—Two lectures. (Prahl.)

German 210 y. Seminar (2, 4)—Two meetings weekly.

(Required of all graduate students in German.)

German 220 f, 221 s. Reading Course (2, 2)—One conference.

Designed to give graduate students the background of a survey of German literature. Extensive outside reading with reports and connecting lectures. (Prahl.)

C. Italian

Italian 1 y. Elementary Italian (6)—Three lectures. Open to freshmen. Also recommended for advanced students in French and Spanish.

Drill in pronunciation and in the elements of the language. Reading of short stories from modern authors.

D. Spanish

Spanish 1 y. Elementary Spanish (6)—Three lectures. Students who offer two units in Spanish for entrance, but whose preparation is not adequate for second-year Spanish, receive half credit for this course.

Elements of grammar; composition; pronunciation and translation.

Spanish 2 s. Elementary Conversation (1)—One lecture. Prerequisite, the grade of A or B in the first semester of Spanish 1 y. Students who are interested in Spanish, and who have done well in the first semester of the elementary year-course, should take this course in conjunction with the second semester of Spanish 1 y.

Spanish 3 y. Second-Year Spanish (6)—Three lectures. Prerequisite, Spanish 1 y or equivalent.

Reading of narrative works and plays; grammar review; oral and written practice.

Spanish 4 f. Grammar Review (2)—Two lectures. Designed particularly for students who enter with three or more units in Spanish, who expect to do advanced work in the Spanish language or literature, but who are not prepared to take Spanish 6 y. Properly qualified students may elect this course at the same time as Spanish 15 y.

Spanish 5 s. Intermediate Conversation (2)—Two lectures. Prerequisite, the grade of A or B in the first semester of Spanish 3 y. Students who expect to take advanced work in Spanish literature, and who have completed the first semester of Spanish 3 y with the grade of A or B, should take this course in conjunction with the second semester of Spanish 3 y.

Practical exercises in conversation; discussion in Spanish of simple texts in prose and verse.

Spanish 6 y. Advanced Composition and Conversation (4)—Two lectures. Prerequisite, Spanish 3 y or equivalent.

Introduction to phonetics; oral and written composition.

(This course is required of students preparing to teach Spanish.)

Spanish 15 y. Introduction to Spanish Literature (6)—Three lectures.

An elementary survey introducing the student to the chief authors and movements in Spanish literature.

Spanish 99 f. Rapid Review of the History of Spanish Literature (1).

Weekly lectures stressing the high points in the history of Spanish literature. This course provides a rapid review for majors by means of a brief survey of the entire field.

For Advanced Undergraduates and Graduates

Spanish 103 f, 104 s. The Spanish Drama (3, 3)—Three lectures.

First semester, the drama of the Golden Age.

Second semester, the drama since Calderon. (Darby.)

Spanish 105 y. Cervantes (6)—Three lectures.

The life and times of Cervantes; principal prose works. (Not given in 1939-40.) (Darby.)

Spanish 107 f, 108 s. The Spanish Novel (3, 3)—Three lectures.

First semester, classic novels and short stories of the Golden Age and of the eighteenth century.

Second semester, a study of the development of the modern novel. (Not given in 1939-40.) (Darby.)

For Graduates

Spanish 201 y. Research (2, 4)—Credits determined by work accomplished. (Staff.)

Spanish 202 y. The Golden Age in Spanish Literature (6)—Three lectures.

Detailed study of the classical authors. (Darby.)

Spanish 203 f, 204 s. Spanish Poetry (3, 3)—Three lectures.

First semester, the epic, the ballad and popular poetry, early lyrics, poetry of the Golden Age.

Second semester, poetry of the eighteenth, nineteenth, and twentieth centuries. (Not given in 1939-40.) (Darby.)

Spanish 210 y. Seminar (2, 4)—One meeting weekly.

(Required of all graduate students in Spanish.)

Spanish 212 f. Introduction to Old Spanish (2)—Two lectures.

(Darby.)

Spanish 220 f, 221 s. Reading Course (2, 2)—One conference.

Designed to give graduate students the background of a survey of Spanish literature. Extensive outside reading with reports and connecting lectures. (Darby.)

MUSIC

MR. RANDALL, MRS. GAVIN.

Music 1 y. Music Appreciation (2)—One lecture.

A study of all types of classical music with a view to developing the ability to listen and enjoy. Lecture recitals will be presented with the aid of performers and records. A study of the orchestra and the instruments that it employs. A study of musical form. The development of the opera and oratorio. Great singers of the past and present. Well-known musicians occasionally appear as guest lecturers and performers.

Music 2 y. History of Music (2)—One lecture.

A comprehensive course in the history of music covering the development of all forms of music from ancient times through the renaissance; the classic and the romantic schools; and the more modern composers.

Music 3 y. Chorus (1).

This course is offered for those interested in part-singing. After voice trials, students who have ability to read and sing music of the grade of easy songs are admitted. Members of the Women's Chorus and the Men's Glee Club indicated hereafter are combined at times for mixed chorus singing.

(A) Women's Chorus. Study of part-singing for women's voices. Credit is awarded for each year's regular attendance at weekly rehearsals and participation in public performances of the chorus.

(B) Men's Glee Club. Study of part-singing for men's voices. Credit is awarded for each year's regular attendance at weekly rehearsals and participation in public performances of the Glee Club.

Music 4 y. Orchestra (1).

The purpose of the University Orchestra is study of the classics. Works of the standard symphonists from Haydn and Mozart to Wagner and the modern composers are used. Students who play orchestral instruments are eligible for membership. At least one rehearsal of two hours' duration is held each week, and all players are expected to take part in public performances.

Music 5 y. Harmony (4)—Two lectures.

This course includes a study of major and minor scales, intervals, harmonic progressions, primary and secondary triads in root position and first and second inversions, the dominant seventh chord in its root position and inversions, altered and mixed chords and modulation.

The above theory is taught to give the student a basis for ear training, dictation, melody writing, and melody harmonization.

PHILOSOPHY

PROFESSOR MARTI.

Phil. 1 f and s. Introduction to Philosophy (3)—Three lectures. Not open to freshmen.

A study of the development of philosophical thought from the early Greeks to the modern era.

Phil. 11 s. Modern European Philosophy (3)—Three lectures. Prerequisite, Phil. 1. (Not given in 1939-40.)

A continuation of Phil. 1. Alternates with Phil. 12 s.

Phil. 12 s. American Philosophy (3)—Three lectures. Prerequisite, Phil. 1.

A continuation of Phil. 1. Alternates with Phil. 11 s.

Phil. 21 f. Aesthetics (3)—Three lectures. Prerequisite, Phil. 1, and prerequisite or, by special permission, corequisite: Art 3 f or 4 s, or Music 1 y or 2 y, or a 100 course in literature.

An historical and systematic introduction to the philosophy of art. Alternates with Phil. 22 f and 23 f.

Phil. 22 f. Logic (3)—Three lectures. Prerequisite, Phil. 1, and satisfactory preparation in mathematics or science.

An introductory course, designed especially for science majors. Alternates with Phil. 21 f and 23 f. (Not given in 1939-40.)

Phil. 23 f. Ethics (3)—Three lectures. Prerequisite, Phil. 1.

A study of the implications of problems of the good life. Alternates with Phil. 21 f and 22 f. (Not given in 1939-40.)

Phil. 31 f. Readings in Philosophy (1)—One hour of discussion. Prerequisite, Phil. 1.

One or several relatively easy philosophical works will be read, and discussed in class. The topic will be changed, from semester to semester, although the same work may be studied again, after three or four semesters. Not more than two credits allowed to any one student. (Not given in 1939-40.)

Phil. 32 s. Readings in Philosophy (1)—One hour of discussion. Prerequisite, Phil. 1.

Similar to Phil. 31 f. (Not given in 1939-40.)

Phil. 33 f. Readings in Philosophy (1)—One hour of discussion. Prerequisite, Phil. 1.

Phil. 34 s. Readings in Philosophy (1)—One hour of discussion. Prerequisite, Phil. 1.

For Advanced Undergraduates and Graduates

Phil. 101 f. Systems of Philosophy (3)—Three hours of lectures, student reports, and discussion. Prerequisite, two courses in philosophy, and the permission of the professor.

The system of one philosopher, or the development of one movement, will be studied throughout the semester. The topic will be changed, from semester to semester, although, after three or four semesters, the same system may be chosen again. (Not given in 1939-40.) (Marti.)

Phil. 102 s. Systems of Philosophy (3)—Three hours of lectures, student reports, and discussion. Prerequisite, two courses in philosophy, and the permission of the professor.

Continuation of Phil. 101 f. (Not given in 1939-40.) (Marti.)

Phil. 103 f. Systems of Philosophy (3)—Three hours of lectures, student reports, and discussion. Prerequisite, two courses in philosophy, and the permission of the professor.

Similar to Phil. 101 f. (Marti.)

Phil. 104 s. Systems of Philosophy (3)—Three hours of lectures, student reports, and discussion. Prerequisite, two courses in philosophy, and the permission of the professor.

Similar to Phil. 101 f. (Marti.)

PHYSICS

PROFESSOR EICHLIN; DR. DICKINSON, DR. MYERS, MR. SMITH, MR. WAGNER.

Phys. 1 y. General Physics (8)—Three lectures; one laboratory. Required of students in the premedical and predental curricula. This course satisfies the minimum requirement for a science major. Prerequisites, Math. 8 f or 11 f and Math. 10 s, or Math. 21 f and 22 s.

A study of the physical phenomena in mechanics, heat, sound, light, magnetism, and electricity. Fee, \$5.00 per semester.

Phys. 2 y. General Physics (10)—Four lectures; one laboratory. Required of all students in the engineering curricula, and of those with chemistry, mathematics, and physics majors. Elective for other students. Prerequisites, Math. 21 f, Math. 22 s, and Math. 23 y. The last may be taken concurrently. Fee, \$5.00 per semester.

A study of mechanics, heat, sound, light, magnetism, and electricity.

Phys. 3 y. Elementary Physics (6)—Three lectures. This introductory course is designed to meet the needs of students who desire to become acquainted with the fundamental principles of physics. Instruction will be given by lectures, recitations, and experimental demonstrations. Fee, \$3.00 per semester.

Phys. 51 f, 52 s. Photography (2, 2)—One lecture; one laboratory.

A study of the physical principles of the camera, enlarger, exposure meter, filter, and other photographic devices. Special emphasis on the application of photographic methods in the laboratory. Prerequisite, Phys. 1 y or Phys. 2 y. Fee, \$5.00 per semester.

For Graduates and Advanced Undergraduates

Phys. 101 f. Precision of Measurements (3)—Three lectures. Prerequisites, Phys. 2 y, or Phys. 1 y and Math. 23 y.

A discussion of the principles underlying the treatment of experimental data, as to precision of observations, errors, interpolation, curve analysis, etc., with especial emphasis on the planning of investigations involving measurements. The course is intended as an introduction to quantitative experimental work. (Eichlin.)

Phys. 102 s. Physical Measurements (3)—Two lectures; one laboratory. Prerequisite, Phys. 101 f.

This course, supplementing Phys. 101 f, is designed to familiarize the student with the manipulation of various types of apparatus used in experimentation in physical problems, and the adaptation and analysis of data so obtained. Fee \$5.00. (Eichlin.)

Phys. 103 y. Advanced Physics (6)—Three lectures. Prerequisite, Phys. 1 y.

This course, supplementing Phys. 1 y, is an advanced study of physical phenomena in optics, spectroscopy, conduction of electricity through gases, photoelectricity, etc., with a comprehensive review of basic principles involved. It is intended to familiarize the student in a general survey with some of the recent developments in physics. (Smith.)

Phys. 104 y. Advanced Experiments (6)—One lecture; two laboratories. Prerequisite, Phys. 103 y.

This course, supplementing Phys. 1 y, is intended to provide the student with experience in experimental physics. Fee \$5.00 per semester. (Not given in 1939-40.) (Myers.)

Phys. 105 f. Heat (3)—Two lectures; one laboratory. Prerequisite, Phys. 2 y, or Phys. 1 y and Math. 23 y.

The classical phenomena of heat and radiation are developed on the basis of the kinetic molecular theory and the quantum theory. The first and second laws of thermodynamics are applied to physical processes. Fee, \$5.00. (Myers.)

Phys. 106 s. Theoretical Mechanics (3)—Three lectures. Prerequisite, Phys. 2 y, or Phys. 1 y and Math. 23 y.

An analytical treatment of the fundamental principles of kinematics and dynamics is presented with problems to illustrate these principles. The

use of generalized coordinates is illustrated. The equations of Lagrange are applied to selected topics in the field of dynamics. (Myers.)

Phys. 107 f. Optics (3)—Two lectures; one laboratory. Prerequisite, Phys. 2 y, or Phys. 1 y and Math. 23 y.

A study is made of selected topics in the refraction, reflection, interference, diffraction, and polarization of light. The principles are employed in a detailed study of optical systems of telescope, microscope, spectroscope, and interferometer. Fee, \$5.00. (Dickinson.)

Phys. 108 y. Electricity (6)—Two lectures; one laboratory. Prerequisites, Phys. 2 y, or Phys. 1 y and Math. 23 y.

A study of electrical properties of matter and space with applications to common electrical instruments and apparatus. Fee, \$5.00 per semester. (Dickinson.)

Phys. 109 y. Electron Physics (6)—Two lectures; one laboratory. Prerequisites, Phys. 2 y, or Phys. 1 y and Math. 23 y.

The discrete nature of matter, electricity, and radiation is emphasized from an empirical point of view. The determination of the fundamental electronic and molecular constants is treated in detail. The process of electrical discharge through gas and vacuum is ramified to include discussion of radioactivity, photoelectricity, thermionics, and atomic structure. Fee, \$5.00 per semester. (Myers.)

Phys. 110 s. Sound (3)—Two lectures; one laboratory. Prerequisite, Phys. 2 y, or Phys. 1 y and Math. 23 y.

A study is made of vibrating systems, the propagation and scattering of sound waves, standing sound waves, sound wave energy, etc. Fee, \$5.00. (Not given in 1939-40.) (Eichlin.)

Phys. 111 f, 112 s. Mathematical Physics (3, 3)—Three lectures. Prerequisite, Phys. 2 y, or Phys. 1 y and Math. 23 y.

Selected topics in physics will be treated to illustrate certain mathematical methods, particularly the use of derivatives and differentials, methods of integration, infinite series, vectors, ordinary and partial differential equations, orthonormal sets of functions. (Myers.)

Phys. 113 f, 114 s. Properties of Matter (3, 3)—Three lectures. Prerequisite, Phys. 2 y, or Phys. 1 y and Math. 23 y.

A study of the constituent particles of matter and such properties of matter as gravitation, molecular attraction, elasticity, special properties of solids and of fluids at rest and in motion, wave propagation. (Eichlin.)

Phys. 115 f, 116 s. High Frequency Phenomena (3, 3)—Two lectures, one laboratory. Prerequisite, Phys. 2 y, or Phys. 1 y and Math. 23 y.

A study of resonant circuits, characteristics of electron tubes, high frequency generators, filters electromagnetic waves, propagation of waves in wires and through a conducting medium. Fee, \$5.00 per semester. (Not given in 1939-40.) (Dickinson.)

Phys. 117 y. Applied Mechanics (4)—Two lectures. Prerequisites, Phys. 2 y and Math. 23 y. Required of juniors in chemical engineering.

A study of the fundamentals and principles of the kinetics and kinematics of bodies in translation and rotation, and of elasticity of solids, with special regard to their engineering application. (Eichlin.)

Courses for Graduates

Phys. 201 f. Atomic Structure (3)—Three lectures.

A development of atomic theory by a discussion of the various atomic properties, particularly those of emission of spectra, scattering of x-rays and electrons, and valency. (Myers.)

Phys. 202 f, 203 s. Spectra I and II (3, 3)—Three lectures.

I. Atomic Spectra. Interpretation of spectral series, fine and hyperfine structure, line intensities and polarization, line contours, and effects of external fields in light of modern atomic theory.

II. Molecular Spectra. A discussion of molecular spectra with particular reference to the information that is given about molecular structure, specific heats, entropy, and related phenomena. (Myers.)

Phys. 204 f, 205 s. Quantum Mechanics (3, 3)—Three lectures.

A treatment of the general methods of quantum mechanics with applications to the theory of atomic and molecular structure, the theory of collision processes, and the theories of radiation and electrodynamics. (Not given in 1939-40.) (Myers.)

Phys. 206 s. Nuclear Structure (3)—Three lectures.

The theory of the nucleus is developed by a discussion of masses, charges, magnetic moments, radioactivity, nuclear reactions, scattering, and interaction with radiation fields. (Myers.)

Phys. 207 f, 208 s. Modern Physics (3, 3)—Three lectures.

A comprehensive survey of developments in physics leading to recent concepts of atomic structure, theory of radiation, interaction of radiation and matter, quantum theory, relativistic mechanics, cosmology. (Dickinson.)

Phys. 209 f, 210 s. Dynamics I and II (3, 3)—Three lectures.

I. A treatment of dynamical systems in generalized coordinates by the equations of Lagrange, of Hamilton, and of Hamilton-Jacobi, by the Hamiltonian Principle, and by the use of canonical transformations.

II. Derivation of the equations of motion of a fluid, a study of irrotational motion, vortex motion, motion of solids through liquids, waves through liquids, viscosity. (Not given in 1939-40.) (Myers.)

Phys. 211 f. Electrodynamics (3)—Three lectures.

The electric and magnetic fields; properties of dielectrics; properties of electric conductors; electromagnetic induction; electromagnetic radiation; dispersion theory; electro- and magneto-optics. (Dickinson.)

Phys. 212 s. Physical Optics (3)—Three lectures.

A mathematical study of the electromagnetic theory of light, with applications to interference, diffraction, dispersion, and polarization. (Dickinson.)

Phys. 213 f, 214 s. Theory of Elasticity (3, 3)—Three lectures.

A comprehensive discussion of the development of theoretical concepts of elasticity with particular attention to torsion, stresses in beams, curved bars, thin plates, stresses produced by dynamical causes, propagation of waves in solid media. (Eichlin.)

Phys. 215 f, 216 s. X-Ray and Crystal Structure (3, 3)—Three lectures.

A discussion of the production and measurement of X-rays with the application of X-ray methods to the study of the physical properties of crystals. (Not given in 1939-40.) (_____.)

Phys. 217 y. Seminar (2).

Presentation of reports and discussion of current developments in physics and of original investigations on special problems. (Staff.)

POLITICAL SCIENCE

PROFESSOR HOWARD; ASSOCIATE PROFESSOR STEINMEYER; DR. BONE, DR. KLINE, MR. WALTHER.

Pol. Sci. 1 f and s. American National Government (3)—Three lectures. Open to freshmen.

A study of the organization and functions of the national government of the United States.

Pol. Sci. 4 f and s. State and Local Government (3)—Three lectures. Prerequisite, Pol. Sci. 1.

A study of the organization and functions of state and local government in the United States, with special emphasis upon the government of Maryland.

Pol. Sci. 7 f, 8 s. Comparative Government (2, 2)—Two lectures. Prerequisite, Pol. Sci. 1.

First semester, a comparative study of the governments of Great Britain, France, and Switzerland.

Second semester, a comparative study of the dictatorial governments of Europe, with special emphasis upon Italy, Germany, and the U. S. S. R.

For Advanced Undergraduates and Graduates

Pol. Sci. 101 f. International Relations (3)—Three lectures. Prerequisite, Pol. Sci. 1 or consent of instructor.

The course deals with the major factors underlying international relations, the influence of geography, climate, nationalism and imperialism, and the development of international organizations. (Steinmeyer.)

Pol. Sci. 102 s. International Law (3)—Three lectures. Prerequisite, Pol. Sci. 1.

A study of the principles governing international intercourse in time of peace and war, as illustrated in texts and cases. (Steinmeyer.)

Pol. Sci. 104 s. Recent Far Eastern Politics (3)—Three lectures. Prerequisite, Pol. Sci. 1 or consent of instructor.

The background and interpretation of recent political events in the Far East and their influence on world politics. (Steinmeyer.)

Pol. Sci. 105 f. Problems of World Politics (3)—Three lectures. Prerequisite, Pol. Sci. 1 or consent of instructor.

The course deals with governmental problems of an international character, such as causes of war, problems of neutrality, propaganda, etc. Students are required to report on readings from current literature. (Steinmeyer.)

Pol. Sci. 111 f. Principles of Public Administration (3)—Three lectures. Prerequisite, Pol. Sci. 4, or consent of instructor.

A functional study of public administration in the United States, with special emphasis upon organization and the relation of administration to the other branches of government. (Howard.)

Pol. Sci. 112 s. Public Personnel Administration (3)—Three lectures. Prerequisite, Pol. Sci. 111 f or consent of instructor.

A study of public personnel practices in the various jurisdictions of the United States and their comparison with practices in certain European countries. (Howard.)

Pol. Sci. 114 s. Municipal Government and Administration (3)—Three lectures. Prerequisite, Pol. Sci. 4.

A detailed study of selected problems of municipal government, such as housing, health, zoning, fire and police, recreation and planning. Course includes a visit to Baltimore to observe the agencies of city government at work. (Kline.)

Pol. Sci. 117 f, 118 s. Government at Work (3, 3)—Three lectures. Prerequisite, Pol. Sci. 1 and consent of instructor.

This course consists of visits to various administrative agencies of the national government, supplemented by reading assignments on the work of the agencies visited. (Howard.)

Pol. Sci. 121 f. Political Parties and Public Opinion (3)—Three lectures. Prerequisite, Pol. Sci. 1.

A descriptive and critical examination of the party process in government: nominations and elections, party expenditures, political leadership, the management and conditioning of public opinion. (Bone.)

Pol. Sci. 123 f. Government and Business (3)—Three lectures. Prerequisite, Pol. Sci. 1.

A general survey of governmental activities affecting business, with special emphasis upon recent developments; federal and state assistance to, and regulation of business in their historical and legal aspects; government ownership and operation. (Bone.)

Pol. Sci. 124 s. Legislatures and Legislation (3)—Three lectures. Prerequisite, Pol. Sci. 4.

A comprehensive study of the legislative process, bicameralism, the committee system and the lobby, with special emphasis upon the legislature of Maryland. The course includes a visit to Washington to observe Congress at work. (Bone.)

Pol. Sci. 131 f. Constitutional Law (3)—Three lectures. Prerequisite, Pol. Sci. 1.

A systematic inquiry into the general principles of the American constitutional system as interpreted by the Supreme Court, with special reference to the role of the judiciary in the interpretation and enforcement of the Constitution, the position of the states in the federal system, state and federal powers over interstate and foreign commerce, and the rights of citizens and of accused persons. (Kline.)

Pol. Sci. 134 s. Administrative Law (3)—Three lectures. Prerequisite, Pol. Sci. 1.

A study of the principles involved in the expansion of the discretion of administrative boards and commissions, including an analysis of their functions, their powers over private rights, their procedure in making findings, the enforcement of their rules and orders and judicial control of their actions. (Kline.)

Pol. Sci. 136 s. Elements of Law (3)—Three lectures. Prerequisite, Pol. Sci. 1.

Development of law and legal systems; comparison of methods and procedure in making and enforcing law in Roman and common law systems; consideration of fundamental legal concepts; contribution and influence of modern schools of legal philosophy in relation to law and government. (Walther.)

Pol. Sci. 141 f. History of Political Theory (3)—Three lectures. Prerequisite, Pol. Sci. 1 or consent of instructor.

A survey of the principal political theories set forth in the works of writers from Plato to Bentham. (Walther.)

Pol. Sci. 142 s. Recent Political Theory (3)—Three lectures. Prerequisite, Pol. Sci. 1 or consent of instructor.

A study of recent political ideas, with special emphasis upon theories of democracy, socialism, communism, fascism, etc. (Walther.)

For Graduates

Pol. Sci. 201 f. Seminar in International Organization (2)—A study of the forms and functions of various international organizations. Special attention is given to the work of the World Court. (Steinmeyer.)

Pol. Sci. 202 s. British Empire (3)—A study of the constitutional development of the British Dominions, with particular attention to the present inter-imperial relationship. (Steinmeyer.)

Pol. Sci. 205 y. Seminar in American Imperialism (4)—Individual reports on selected topics, with special reference to the causes and methods of recent American imperialistic policy. (Not offered in 1939-40.) (Steinmeyer.)

Pol. Sci. 211 y. Seminar in Federal-State Relations (4)—Reports on topics assigned for individual research in the field of recent federal-state relations. (Howard.)

Pol. Sci. 215 f. Problems of Government in Metropolitan Regions (2)—Analysis of some metropolitan areas and some of the most pressing problems arising out of the existence of dense populations spread over a large number of small governmental units having similarly inadequate powers and facilities to cope with the problems involved; discussion of possible solutions. (Kline.)

Pol. Sci. 221 f. Seminar in Public Opinion (2)—Reports on topics assigned for individual research in the field of public opinion. (Not offered in 1939-40.) (Bone.)

Pol. Sci. 222 s. Psych. 280 s. Analysis of Propaganda (3)—Two lectures and one discussion. Prerequisite, consent of instructors.

Analytical approach to modern propaganda, including study of organizations which employ propaganda, of techniques in actual use in disseminating propaganda, and of attempts at measuring the effects of propaganda. Responsibility for instruction is shared by the Department of Political Science and the Department of Psychology. (Bone, Jenkins.)

Pol. Sci. 251 f. Bibliography of Political Science (1)—This course is intended to acquaint the student with the literature of the various fields of Political Science and to instruct him in the use of government documents. (Staff.)

Pol. Sci. 261 f or s. Research in Political Science (2, 4)—Credit apportioned according to work accomplished. (Staff.)

POULTRY HUSBANDRY

PROFESSORS JULL, BYERLY; ASSOCIATE PROFESSORS GWIN, BIRD, QUIGLEY.

P. H. 1 f. Poultry Production (3)—Two lectures and one two-hour laboratory.

This is a general course designed to acquaint the student with modern

methods of poultry husbandry. Principles of incubation, brooding, egg production, marketing, and breed improvement are discussed.

(Quigley.)

P. H. 2 s. Poultry Management (3)—Two lectures and one two-hour laboratory.

Material will be presented in this course to acquaint the student with modern methods of feeding, housing, sanitation, and organization necessary to the profitable operation of a poultry establishment.

(Quigley.)

P. H. 3 f. Poultry Biology (1 or 2)—One lecture and one two-hour laboratory. Prerequisite, P. H. 1 f and 2 s or equivalent.

The elementary anatomy of the fowl, selection for eggs and meat production and for breed standards are studied. Judging team for intercollegiate competitions are selected from members of this class.

(Staff.)

For Advanced Undergraduates and Graduates

P. H. 101 s. Poultry Genetics (3)—Three one-hour lectures, demonstration, quiz periods. Prerequisites, P. H. 3 f and Gen. 101 f.

The inheritance of morphological and physiological characters of poultry are presented. Inheritance of factors related to egg and meat production and quality are stressed.

(Staff.)

P. H. 102 s. Poultry Nutrition (2)—One two-hour laboratory; one one-hour lecture, demonstration, quiz. Prerequisite, P. H. 1 f and 2 s.

The nutritive requirements of poultry and the nutrients which meet those requirements are presented. Feed cost of poultry production is emphasized.

(Bird.)

Poultry Hygiene, see Veterinary Science, V. S. 107 s.

P. H. 104 y. Poultry Products Marketing Problems (4)—Two one-hour lecture, demonstration, quiz periods, weekly. Prerequisite, P. H. 1 f and 2 s.

This course includes material on egg and meat quality, commercial grades, relation of transportation and distribution to quality and methods of marketing, especially as related to quality.

(Gwin.)

Preservation of Poultry Products, see Bacteriology, Bact. 108 s.

P. H. 106 f. Poultry Physiology (1 or 2)—One lecture; One two-hour laboratory. Prerequisite, P. H. 101 s.

The physiology of development and incubation of the embryo, especially physiological pathology of the embryo in relation to hatchability, is presented. Physiology of growth and the influence of environmental factors on growth and development are considered.

(Byerly.)

P. H. 107 f. Poultry Industrial and Economic Problems (3)—Three lectures weekly.

This course presents the relation of poultry to agriculture as a whole

and its economic importance. Consumer prejudices and preferences, production, transportation, storage, and distribution problems are discussed. Trends in the industry, surpluses and their utilization, poultry by-products, and disease problems, are presented. (Staff.)

For Graduates

P. H. 201 s. Advanced Poultry Genetics (3)—Three lectures. Prerequisite, P. H. 201 s or equivalent.

This course serves as a foundation for research in poultry genetics. Linkage, crossing-over, inheritance of sex, the expression of genes in development, inheritance of resistance to disease, and the influence of the environment on the expression of genetic capacities are considered. (Jull.)

P. H. 202 f. Advanced Poultry Nutrition (3)—Two lectures; one laboratory. Prerequisite, P. H. 102 f or equivalent.

Deficiency diseases of poultry are considered intensively. Vitamin, mineral, and protein deficiencies are given special consideration. Synthetic diets, metabolism, and the physiology of digestion, growth curves and their significance, and feed efficiency in growth and egg production are studied. (Bird.)

P. H. 203 s. Physiology of Reproduction of Poultry (3)—One two-hour laboratory; two one-hour lectures.

The role of the endocrines in reproduction, especially with respect to egg production, is considered. Fertility, sexual maturity, broodiness, molting, egg formation, ovulation, deposition of egg envelopes, and the physiology of oviposition are studied. (Byerly.)

P. H. 204 f and s. Seminar (1).

Reports of current researches by staff members, graduate students, and guest speakers are presented. (Staff.)

P. H. 205 f and s. Poultry Literature (1-4).

Readings on individual topics are assigned. Oral and written reports required. Methods of analysis and presentation of scientific material are taught. (Staff.)

P. H. 206 f and s. Research in Poultry—Credit in accordance with work done.

Practical and fundamental research with poultry may be conducted under the supervision of staff members toward the requirements for the degrees M. S. and Ph. D. (Staff.)

PSYCHOLOGY

PROFESSORS JENKINS, SPROWLS; ASSISTANT PROFESSORS CLARK, BELLOWS;
LECTURER HALL; DR. GHISELLI.

Psychological Testing Bureau

The staff of the Department of Psychology maintains a bureau for vocational and educational guidance on the basis of adequately standardized psychological tests. The services of the bureau are available without charge to students.

Psych. 1 f and s. Introduction to Psychology (3)—Two lectures and one discussion. Open to sophomores.

A general introduction to typical problems upon which psychologists are at work. Review of experimental investigations of the more fundamental phases of human behavior.

Psych. 2 f. Applied Psychology I (3)—Two lectures and one discussion. Prerequisite, Psych. 1.

Application of controlled observation to practical psychological problems in methods of studying, in vocational orientation, in highway safety, and in the professions.

Psych. 3 s. Applied Psychology II (3)—Two lectures and one discussion. Prerequisite, Psych. 1.

Application of controlled observation to practical psychological problems in business and industry, including industrial selection, methods of production, advertising, selling, and market research.

Psych. 4 f. Psychology for Students of Commerce (3)—Two lectures and one discussion. Open only to students in economics or business administration.

Topics in applied psychology which relate to practical problems in business and industry viewed from the standpoint of controlled observation.

Psych. 10 f and s. Educational Psychology (3)—Two lectures and one discussion. Open to juniors and seniors only. Required of students in Education.

Experimental studies of basic psychological problems encountered in education; measurement and significance of individual differences, learning, motivation, transfer of training, etc.

For Advanced Undergraduates and Graduates

Psych. 110 f or s. Advanced Educational Psychology (3)—Prerequisite, Psych. 10.

More advanced treatment of the solution of basic psychological problems in education by methods of controlled observation. (Not given in 1939-40.)

Psych. 120 f. Psychology of Individual Differences (3)—Prerequisite, Psych. 1 or 10.

The occurrence, nature, and causes of psychological differences between individuals, methods of measuring these differences, and their importance in education, business and industry. (Ghiselli.)

Psych. 121 s. Experimental Social Psychology (3)—Prerequisite, Psych. 1.

Results of researches on behavior in social settings; experimental studies of the effects of group membership, of the family, and of current social forces. (Jenkins.)

Psych. 125 f. Child Psychology (3)—Prerequisite, Psych. 1 or 10.

Experimental analysis of child behavior; motor and intellectual development, emotions, social behavior, parent-child relationships, and problems of the growing personality. (Clark.)

Psych. 130 f and s. Mental Hygiene (3)—Two lectures and one clinic. Prerequisite, Psych. 1 or 10. Repeated in second term.

The more common deviations of personality; typical methods of adjustment. (Sprowls, Hall.)

Psych. 131 s. Abnormal Psychology (3)—Two lectures and one clinic. Prerequisite, Psych. 130.

The nature, occurrence, and causes of psychological abnormality with emphasis on the clinical rather than theoretical aspects. (Sprowls, Hall.)

Psych. 140 f. Psychological Problems in Market Research (3)—Prerequisite, Psych. 3 s or permission of instructor.

Use of methods of controlled observation in determining public reactions to merchandise, and in measuring the psychological influences at work in particular markets. (Jenkins.)

Psych. 141 s. Psychology in Advertising and Selling (3)—Prerequisite, Psych. 3 s.

Experimental and statistical studies of psychological aspects of advertising; methods of measuring the effectiveness of advertising; the role of such factors as attention, memory, belief, etc.; problems associated with specific advertising media. (Ghiselli.)

Psych. 150 s. Psychological Tests and Measurements (3)—Two lectures and one laboratory period. Prerequisite, Psych. 120 f or permission of instructor.

Critical survey of psychological tests used in vocational orientation and in industry with emphasis on methods by which such tests are validated; practice in the use of tests and the interpretation of test data. (Bellows)

Psych. 160 f. Psychological Aspects of Industrial Production (3)—Prerequisite, Psych. 3 s or permission of instructor.

Controlled observation applied to psychological problems in industrial production, including psychological effects of conditions and methods of work. (Not given in 1939-40.)

Psych. 161 s. Psychology of Personnel (3)—Prerequisite, Psych. 3 s or permission of instructor.

Psychological problems involved in the management of personnel in modern business and industry. A consideration of employee selection, measures of ability, methods of developing and maintaining personal efficiency and morale. (Clark.)

Psych. 170 f. Legal Psychology (3)—Prerequisite, Psych. 121 s or permission of instructor.

Interpretation of researches pertaining to accuracy of observation and of testimony, psychological aids in determination of guilt, and treatment of the offender. (Sprowls.)

Psych. 190 y. Techniques of Investigation In Psychology (3)—Three periods of practice and discussion. Prerequisite, Psych. 3 s.

A consideration of quantitative methods in psychology, the design of experiments, and actual practice in various methods of obtaining data and in treating these results for interpretation. (Ghiselli.)

Psych. 195 f or s. Minor Problems in Psychotechnology (2, 3)—Credit apportioned to work accomplished. Prerequisite, Major senior standing and consent of department head. (May not be offered for credit toward graduate degrees.)

Conduct of original research under the supervision of some member of the staff. Satisfactory completion of this project may lead to publication in one of the standard psychological journals.

For Graduates

Psych. 200 y. Research in Psychotechnology (4, 6)—Credit apportioned to work accomplished. (Staff.)

Psych. 210 y. Seminar in Educational Psychology (6)—An advanced course for teachers and prospective teachers. Open only to graduates.

Systematic approach to advanced problems in educational psychology based upon specific experimental contributions. (Sprowls.)

Psych. 240 y. Seminar in Current Psychotechnological Problems (6)—An advanced course for students pursuing major graduate studies.

A systematic analysis of recent contributions in selected psychotechnological fields.

Psych. 250 y. Participation in Testing Clinic (4, 6)—Credit apportioned to work accomplished.

Actual practice in the administration of tests of aptitude, interest, and achievement and interpretation of test data in the course of routine operation of the testing bureau. (Bellows.)

Psych. 255 s. Psychological Problems in Vocational Orientation (3)—Prerequisite, Psych. 150 s or equivalent.

Experimental development and use of the vocational counseling interview, aptitude tests, and related techniques for the occupational orientation of youth. (Bellows.)

Psych. 261 f. Advanced Personnel Psychology (3)—Lectures and field periods. Prerequisite, Psych. 161 f.

Actual participation in industrial and governmental personnel programs,

together with periodic discussions of the principles involved. Intended primarily for students planning to enter personnel administration.

(Clark.)

Pol. Sci. 222 s—Psych. 280 s. Analysis of Propaganda (3)—Two lectures and one discussion. Prerequisite, consent of instructors.

Analytical approach to modern propaganda, including study of organizations which employ propaganda, of techniques in actual use in disseminating propaganda, and of attempts at measuring the effects of propaganda. Responsibility for instruction is shared by the Department of Political Science and the Department of Psychology.

(Bone, Jenkins.)

SOCIOLOGY

ASSOCIATE PROFESSOR JOSLYN; ASSISTANT PROFESSOR DODSON; DR. JACOBI, DR. WITTLER, DR. HODGE, MR. LISTER.

Soc. Sci. 1 y. Introduction to the Social Sciences (6)—One lecture, two discussions. Open to freshmen and sophomores only.

This course serves as an orientation to advanced work in the social sciences. In the first semester, the basis, nature, and evolution of society and social institutions are studied. During the second semester, the major problems of modern citizenship are analyzed in terms of knowledge contributed by economics, history, political science, psychology, and sociology.

Soc. 1 f and s. Principles of Sociology (3)—Three discussions. Prerequisite, sophomore standing.

An analysis of society and the basic social processes; characteristics of collective behavior; typical social organizations; the development of human nature; the relation of the individual to the group; social products; social interaction; social change.

Soc. 2 f and s. Comparative Sociology (2)—Two lectures. Prerequisite, sophomore standing.

A comparative analysis of primitive and civilized societies; resemblances and differences in their social life and cultures; factors underlying these resemblances and differences; significance of findings with reference to fundamental principles of sociology.

For Advanced Undergraduates and Graduates

Soc. 101 f. Community Organization (2)—Two lectures. Prerequisite, Soc. 1.

An analysis of the community and its component social groups; ecological foundations of the community; the structure and functions of special interest groups; the role of social institutions and agencies in community life; leadership and followership in group activities.

(Dodson.)

Soc. 102 f. Rural Sociology (2)—Two lectures. Each graduate student will be required to prepare an extra term paper.

The structure and functions of rural communities, ancient and modern; the evolution of rural culture; rural institutions and their problems; the

psychology of rural life; composition and characteristics of the rural population; relation of rural life to the major social processes; the social aspects of rural planning.

(Dodson.)

Soc. 103 s. Urban Sociology (2)—Two lectures. Each graduate student will be required to prepare an extra term paper.

The origin and growth of cities; composition and characteristics of city populations; the social ecology of the city; social relationships and groupings in the city; the organization of urban activities; social problems of the city; the planning and control of urban development.

(Joslyn.)

Soc. 104 f. Recent Social Thought (2)—Two discussions. Prerequisites, Soc. 1, and consent of instructor. Intended mainly for sociology majors and minors.

A critical study of the leading schools of sociological thought since 1800.

(Wilson.)

Soc. 105 s. Population Problems (2)—Two lectures. Prerequisite, Soc. 1.

Population growth in the United States; contemporary trends in fertility and mortality; differential fertility and mortality; changes in the composition of our population and their significance; population migration in modern times; qualitative problems of population; theories of population growth and decline. (Not offered in 1939-1940.)

(Joslyn.)

Soc. 106 s. Regional Sociology (2)—Two lectures. Prerequisite, Soc. 1.

An analysis of American society and culture from the standpoint of regional similarities and differences. Topics to be covered will include: the meanings and implications of regionalism; criteria of regional differentiation; types of regions in the United States; problems peculiar to various regions; regional planning.

(Hodge.)

Soc. 107 f. The Village (2)—Two lectures. Each graduate student will be required to prepare an extra term paper.

The evolution of the American village; present day social structure and functions of the village; an analysis of village population; the relationship of the village to urban and open-country areas; village planning. (Not offered in 1939-1940.)

Soc. 108 s. The Family (2)—Two lectures. Prerequisite, Soc. 1.

Anthropological and historical backgrounds; biological, economic, psychological, and sociological bases of the family; the role of the family in personality development; family and society; family disorganization; family adjustment and social change.

(Jacobi.)

Soc. 120 f. Social Pathology (2)—Two lectures. Prerequisite, Soc. 1. or consent of instructor.

A study of maladjustments between the individual and his social environment which represent deviations from generally accepted norms. Problems to be covered will include: poverty, unemployment, family disorganization, crime and delinquency, suicide, and the misuse of leisure time.

(Joslyn.)

Soc. 121 f. Criminology and Penology (3)—Three lectures. Prerequisite, Soc. 120 f.

The nature and extent and cost of crime; causative factors; historical methods of dealing with criminals; apprehension of alleged criminals; the machinery of justice; penal institutions; other means of caring for convicted persons; the prevention of crime. (Jacobi.)

Soc. 122 s. Juvenile Delinquency (2)—Two lectures. Prerequisite, Soc. 120 f.

The nature of delinquency; the relations between delinquency and crime; the delinquent child as a social problem; causative factors in delinquency; the juvenile court movement; disposition and treatment of delinquent cases as a form of social work; evaluation of contemporary programs of crime prevention. (Jacobi.)

Soc. 123 f. The Sociology of Leisure (2)—Two lectures. Prerequisite, Soc. 120 f.

This course deals with the sociological implications of leisure time and its uses, particularly in contemporary American life. The group aspects of recreation, including both commercialized and voluntary forms, community organization and planning for leisure-time activities, and related subjects are included. (Hodge.)

Soc. 124 s. Introduction to Social Work (3)—Three lectures. Prerequisite, Soc. 120 f.

The theory of social work; social case work, generic and specific; procedure and techniques in social case work; principles of social diagnosis; present day types of social work; administration of public and private welfare agencies. Field trips will be made to representative social agencies. (Joslyn.)

Soc. 150 s. Field Practice in Social Work (2)—Open only to sociology majors upon consent of instructor. Enrollment restricted to available opportunities.

Supervised field work of various types undertaken during the summer months and suited to the needs of the individual students. (Joslyn.)

For Graduates

Soc. 201 y. Systematic Sociology (4)—Two lectures.

A study of the fundamental theoretical problems of sociology. Reference will be made to the works of Comte, Spencer, Durkheim, Weber, and Pareto. (Joslyn.)

Soc. 202 s. Comparative Sociology (2)—Two lectures.

An intensive study of selected problems bearing on the significance of resemblances and differences shown in the social life and cultures of primitive as compared with civilized peoples. (Wilson.)

Soc. 203 s. Community Organization (2)—Two lectures.

Special problems in the field of rural, village, suburban, and urban community organization. Studies will be made of the composition, structure, and functioning of particular communities. (Dodson.)

Soc. 204 s. Rural-Urban Sociology (2)—Two lectures.

A study of the differences between rural and urban societies with reference to composition of population, social mobility, social relationships, differentiation of social groups, standards of living, mores and attitudes, and various pathological conditions. (Dodson.)

Soc. 205 s. Regional Sociology (2)—Two lectures.

The meanings and implications of regionalism; demarcation of regions in the United States on the basis of geographic, economic, demographic, political, and cultural criteria; characteristics and problems peculiar to each region; planning for regional development. (Hodge.)

Soc. 221 f. Criminology and Penology (2)—Two lectures.

An intensive study of the major problems of criminology, including the history of criminological theory, factors involved in crime causation, administration of criminal justice, modern trends in dealing with criminals, and present theories of crime prevention. (Wilson.)

Soc. 250 f or s. Sociological Research (2-4)—Credit proportional to work accomplished.

Individual research projects involving either field work or analysis of compiled data. (Staff.)

SPEECH

PROFESSOR RICHARDSON; ASSOCIATE PROFESSOR EHRENSBERGER; ASSISTANT PROFESSOR PROVENSEN; MR. STRAUSBAUGH, MRS. VERNON, MR. WILLIAMS, MR. McREYNOLDS.

Speech 1 y. Reading and Speaking (2)—One lecture.

The principles and techniques of oral expression, visible and audible; the preparation and delivery of short original speeches; impromptu speaking; reference readings, short reports, etc. Opportunities of speech clinic open to students.

Speech Clinic—No credit.

Speech examinations; training in speech and voice; remedial work in minor speech difficulties. The work of the clinic is conducted in individual conferences and in small group meetings. Hours are arranged by consultation with the respective speech instructors.

Speech 2 y. Fundamentals of Speech (4)—Two lectures.

Studies in the bases and mechanics of speech. This course does not deal with public speaking exclusively; it is concerned with the whole speech function in private as well as public manifestations. It is given primarily

for students who expect to do extensive work in speech. Any student electing this course may take it concurrently with or after completing Speech 1 y.

Speech 3 f, 4 s. Advanced Public Speaking (2, 2)—Two lectures.

Advanced work on basis of Speech 1 y, with special applications and adaptations. At each session of the class a special setting is given for the speeches—civil, social, and political organizations, etc., and organizations in the fields of the prospective vocations of the different students. When a student has finished this course he will have prepared and delivered one or more speeches which would be suitable and appropriate before any and all bodies that he would probably have occasion to address in after-life.

Speech 5 f. Oral Technical English (2)—Two lectures.

The preparation and delivery of speeches, reports, etc., on both technical and general subjects. This course is especially adapted to the needs of engineering students. Required of all sophomore engineering students.

Speech 6 y. Advanced Oral Technical English (2)—One lecture.

This course is a continuation of Speech 5 f. Special emphasis upon engineering projects that fall within the student's own experience. Class discussion and criticism of all speeches and reports. Required of all junior engineering students.

Speech 7 y. Advanced Oral Technical English (2)—One lecture.

Advanced work on the basis of Speech 6 y. Work not confined to class room. Students are encouraged to deliver addresses before different bodies in the University and elsewhere. Senior seminar. For senior engineering students only.

Speech 9 f, 10 s. Extempore Speaking (1, 1)—One lecture.

Much emphasis on the selection and organization of material. Class exercises in speaking extemporaneously on assigned and selected subjects. Newspaper and magazine reading essential. Training in parliamentary law.

Speech 11 f, 12 s. Argumentation (2, 2)—Two lectures.

This course stresses not formal debating, but forms of persuasion which will be useful in business and professional life. It deals, to a great extent, with ways in which human beliefs and behavior may be influenced by logical discussion.

Speech 13 f, 14 s. Oral Reading (1, 1)—One lecture.

A study of the technique of vocal expression. The oral interpretation of literature. The practical training of students in the art of reading.

Speech 15 f, 16 s. Advanced Oral Reading (1, 1)—One lecture. Prerequisite, Speech 13 f or 14 s or the equivalent (if work is entirely satisfactory).

Advanced work in oral interpretation.

For Advanced Undergraduates

Speech 101 y. Radio Speaking (4)—Two lectures.

A laboratory course dealing with the various aspects of modern broadcasting. Practice in program planning, continuity writing, announcing, news reporting, etc. Actual participation in broadcasting at station WJSV in Washington. This course is under the supervision of the Columbia Broadcasting System and the speech department. Admission by audition or consent of the instructor. Laboratory fee, \$2.00 per semester.

Speech 102 f. Voice and Diction (3)—Three lectures.

This course is designed to provide the student with an opportunity to improve his articulation and phonation. Study and demonstration of speech sound production, physics of sound, attributes of voice, the breathing mechanism, the larynx and the ear are combined with intensive drills in articulation and voice production. (———.)

Speech 103 s. Speech Pathology (3)—Three lectures.

The aim of this course is to familiarize the student with causes, nature, symptoms, and treatment of common types of speech disorders. Emphasis is placed upon the remedial measures employed in the treatment of minor speech disorders.

STATISTICS

PROFESSOR KEMP.

Stat. 14 f. Elements of Statistics (3)—Three lectures.

Organized for students in Economics and Business Administration. A study of the fundamental principles used in statistical investigation, together with the making of diagrams, graphs, charts, and tables.

Stat. 15 s. Economic Statistics (3)—Three lectures. Prerequisite, Stat. 14 f.

A study of error, partial correlation, rectilinear and curvilinear multiple correlation and regression, analysis of variance and covariance.

For Advanced Undergraduates and Graduates

Stat. 111 f. Biological Statistics (2)—Two lectures.

Organized for students in biology. A study of expressions of type, variability, correlation, regression, error and significance of differences.

Stat. 112 s. Advanced Biological Statistics (2)—Two lectures. Prerequisite, Stat. 111 f.

A study of error, multiple and partial correlation, predictive formulae, empirical curves, analysis of variance and covariance.

Stat. 116 s. Statistical Design (2)—Two lectures. Prerequisite, Stat. 15 s or 112 s.

A study of the principles of logical design for investigations when the resulting data are to be subjected to statistical analysis. Methods and uses of randomization, factorial design, and confounding are considered in some detail.

Stat. 120. Problems (2-4)—Credit in accordance with work done.

To acquire training and experience in independent statistical analysis, each student will select an approved problem for organization, analysis, and presentation of results.

For Graduates

Stat. 208. Special Problems (1-4)—Credit in accordance with work done.

Each student registered in this course will choose a relatively complex problem for organization, analysis, and presentation of results.

VETERINARY SCIENCE

PROFESSORS WELSH, BRUECKNER; ASSOCIATE PROFESSORS CRAWFORD, DEVOLT; ASSISTANT PROFESSOR DAVIS.

For Advanced Undergraduates and Graduates

V. S. 101 f. Comparative Anatomy and Physiology (3)—Three lectures.

Structure of the animal body; abnormal as contrasted with normal; interrelationship between the various organs and parts as to structure and function; comparative study of herbivora, carnivora, and omnivora.

V. S. 102 s. Animal Hygiene (3)—Three lectures.

Care and management of domestic animals, with special reference to maintenance of health and resistance to disease; prevention and early recognition of abnormal conditions; general hygiene; sanitation; infections; epizootics; enzootics; internal and external parasites; first aid.

V. S. 103 f. Hematology (2)—Two laboratories.

Physiologic, pathologic, and diagnostic significance of changes in blood; taking samples; estimating the amount of hemoglobin; color index; numerical count of erythrocytes and leucocytes; study of red cells, and leucocytes in fresh and fixed stained preparations; differential count of leucocytes; vital staining; sources and development of the formed elements of blood; pathological forms and counts.

V. S. 104 s. Urinalysis (2)—Two laboratories. Junior year. Bact. 1 desirable.

Physiologic, pathologic, and diagnostic significance of kidney excretions, use of clinical methods including microscopic examination for casts, cells, blood, parasites, bacteria, and interpretation of results.

V. S. 105 f. Pathological Technic (3)—Three laboratories. Junior year. Bact. 1 desirable.

Examination of fresh material; fixation; decalcification; sectioning by free hand and freezing methods; celloidin and paraffin embedding and sectioning; general staining methods.

V. S. 106 s. Pathological Technic (continued) (2-5)—Laboratory course. Junior year. Prerequisite, consent of instructor.

Special methods in pathological investigations and laboratory procedures as applied to clinical diagnosis.

V. S. 107 s. Poultry Hygiene (2)—Two lectures. Senior year. Prerequisites, Bact. 1, P. H. 106 f.

Study of causes, symptoms, dissemination, life cycle, seasonal appearance, methods of control and eradication of various bacterial, protozoan and virus diseases of poultry, including internal and external parasites. (DeVolt and Davis.)

For Graduates

V. S. 201 f or s. Animal Disease Problems (2-6).—Prerequisite, degree in veterinary medicine from an approved veterinary college or consent of instructor. Laboratory and field work by assignment.

V. S. 202 y. Animal Disease Research (2-6).—Prerequisite, degree in veterinary medicine from an approved veterinary college or consent of instructor.

ZOOLOGY

PROFESSOR TRUITT; ASSOCIATE PROFESSOR PHILLIPS; ASSISTANT PROFESSOR BURHOE; DR. NEWCOMBE, DR. HARD, MR. SHAY, MR. STULL, MR. NASH, MISS TOMLINSON, MISS ALLEN.

Zool. 1 s. General Zoology (4)—Two lectures; two laboratories.

An introductory course, which is cultural and practical in its aim. It deals with the basic principles of animal development, structure relationships, and activities, a knowledge of which is valuable in developing an appreciation of the biological sciences. Typical invertebrates and a mammalian form are studied. Fee, \$5.00.

Zool. 2 f. Elementary Zoology (3)—Two lectures; one demonstration.

A course for students desiring a general knowledge of the principles underlying the growth, development, and behavior of animals, including man. Fee, \$3.00.

Zool. 3 f. Invertebrate Morphology (4)—Two lectures; two laboratories. Required of students whose major is zoology, and of premedical students.

This course consists in a study of the structure and relationships of selected invertebrate groups. Fee, \$5.00.

Zool. 4 s. Comparative Vertebrate Morphology (4)—Two lectures; two laboratories.

A comparative study of selected organ systems in certain vertebrate groups. Required of students whose major is zoology, and of premedical students. Fee, \$5.00.

Zool. 5 s. Economic Zoology (2)—Two lectures. Prerequisite, one course in zoology.

The content of this course centers around the problems of preservation, conservation, control, and development of economic wild life, with special reference to Maryland. The lectures are supplemented by assigned readings and reports.

Combined with Zool. 6 s, this course should form a part of the basic training for professional foresters, game proctors, and conservationists.

Zool. 6 s. Field Zoology (3)—One lecture; two laboratories. Prerequisites, one course in zoology and one in botany.

This course consists in collecting and studying both land and aquatic forms of nearby woods, fields, and streams, with emphasis on the higher invertebrates and certain vertebrates, their breeding habits, environment, and modes of living. Intended for teachers of biology, and also for those who have a special interest in nature study and outdoor life.

Zool. 12 f. Animal Histology (3)—One lecture; two laboratories. Prerequisite, one course in zoology.

A study of animal tissues and the technic involved in their preparation for microscopic examination. Fee, \$5.00.

Zool. 15 f. Human Anatomy and Physiology (4)—Two lectures; two laboratories. Prerequisite, one course in zoology.

For students who desire a general knowledge of human anatomy and physiology. Emphasis is placed upon the physiology of digestion, circulation, respiration, and reproduction. Required of students whose major is physical education, and of those preparing to teach general science or biology. Fee, \$5.00.

Zool. 16 s. Human Physiology (3)—Two lectures; one laboratory. Not open to freshmen.

Similar to Zool. 15 f. Primarily for home economics students. Fee, \$5.00.

Zool. 20 s. Vertebrate Embryology (3)—One lecture; two laboratories. Prerequisite, one course in zoology. Required of students whose major is zoology.

The development of the chick to the end of the fourth day and early mammalian embryology. Fee, \$5.00.

For Graduates and Advanced Undergraduates

Zool. 101 s. Mammalian Anatomy (3)—Three laboratories. Registration limited. Permission of the instructor must be obtained before registration.

A course in the dissection of the cat or other mammal. Recommended for premedical students, and those whose major is zoology. Fee, \$5.00.

(Phillips.)

Zool. 102 f. Histological Technique (3)—One lecture; two laboratories. Registration is limited and the permission of the instructor must be obtained before registration.

The preparation of animal tissues for microscopical examination. The course is designed to qualify the student in the preparation of tissues and blood for normal and pathological study. Fee, \$5.00. (Hard.)

Zool. 103 f, 104 s. General Animal Physiology (3, 3)—Two lectures; one laboratory. Prerequisites, one year of chemistry and one course in vertebrate anatomy. Registration limited to twelve, and permission of instructor must be obtained before registration.

The first semester work deals with the fundamentals of cellular and general physiology; the second semester is devoted to an application of these principles to the higher animals. Fee, \$5.00 each semester. (Phillips.)

Zool. 105 f. Aquiculture (3)—Two lectures; one laboratory. Prerequisite, one course in zoology.

The course deals with the practices employed in rearing aquatic animals and the properties of natural waters which render them suitable for environmental purposes. Fee, \$5.00. (Truitt.)

Zool. 106 y. Journal Club (2)—One session.

Reviews, reports, and discussions of current literature. Required of all students whose major is zoology. (Staff.)

Zool. 108 s. Animal Geography (3)—Two lectures; one laboratory. Prerequisite, one course in zoology.

This course deals with the distribution, classification, and environmental relations of animals. Several field trips are scheduled. Fee, \$5.00. (Newcombe.)

Zool. 120 s. Animal Genetics (3)—Two lectures; one laboratory.

The fundamental principles of heredity and variation. A consideration of the factors determining the formation and development of the characteristics of an individual and their manner of transmission through successive generations. Required of students whose major is zoology who do not have credit for Gen. 101 f. Fee, \$5.00. (Burhoe.)

Zool. 121 f. Animal Ecology (3)—Two lectures; one laboratory. Prerequisite, one course in zoology.

Animals are studied in relation to their natural surroundings. Certain environmental factors affecting growth, behavior, and distribution are analyzed by observations and experiments conducted in the field and also in the laboratory under controlled conditions. Special field excursions are made to the mountains and sea shore. Fee, \$5.00. (Newcombe.)

For Graduates

Zool. 200 f. Marine Zoology (4)—Two lectures; two laboratories.

Problems in salt water animal life of the higher phyla. Fee, \$5.00.

(Truitt.)

Zool. 201 f. Microscopical Anatomy (4)—Two lectures; two laboratories.

A detailed study of the morphology and activity of cells composing animal tissues. Recent advances in the field of cytology are covered in lectures, assigned readings, and reports. Fee, \$5.00.

(Hard.)

Zool. 203 s. Advanced Embryology (4)—Two lectures; two laboratories.

Mechanics of fertilization and growth. A review of the important contributions in the field of experimental embryology and development of animals, including a consideration of tissue culture and transplantation. Fee, \$5.00.

(Burhoe.)

Zool. 204 f. Advanced Animal Physiology (4)—Two lectures; two laboratories.

The principles of general and cellular physiology as found in animal life. Fee, \$5.00.

(Phillips.)

Zool. 205 s. Hydrobiology (4)—Two lectures; two laboratories.

Biotic, physical, and chemical factors of the aquatic environment, including certain fundamental principles of oceanography. Special reference is made to the Chesapeake Bay region. Fee, \$5.00.

(Newcombe.)

Zool. 206 y. Research—Credit to be arranged. Fee \$5.00 each semester.

(Staff.)

CHESAPEAKE BIOLOGICAL LABORATORY

This laboratory, located in the center of the Chesapeake Bay country, is on Solomons Island, Maryland. It is sponsored cooperatively by the Maryland Conservation Department, Goucher College, Washington College, Johns Hopkins University, The University of Maryland, Western Maryland College, and the Carnegie Institution of Washington, in order to afford a center for wild life research and study where facts tending toward a fuller appreciation of nature may be gathered and disseminated. The program projects a comprehensive survey of the biota of the Chesapeake region.

The laboratory is open throughout the year. Courses are offered for advanced undergraduate and graduate students, during a six-week summer session, in the following subjects: Economic Zoology, Invertebrates, Ichthyology, Experimental Zoology, Protozoology, Algae, and Diatoms. Not more than two courses may be taken by a student, who must meet the requirements of the Department of Zoology as well as those of the laboratory before matriculation. Classes are limited to eight matriculants. Students pursuing special research may establish residence for the summer, or for the entire year.

Laboratory facilities, boats of various types fully equipped (pumps, nets, dredges and other apparatus), and shallow water collecting devices are available for the work without cost to the students.

For further information about work at the Chesapeake Biological Laboratory, apply to Dr. R. V. Truitt, Director, College Park, Maryland.

SECTION IV DEGREES, HONORS, STUDENT REGISTER

DEGREES CONFERRED, 1937-1938

HONORARY DEGREES

Doctor of Letters

FRANK BRETT NOYES

GILBERT HOVEY GROSVENOR

Doctor of Engineering

CHARLES HUNTER LOCHER

Honorary Certificates of Merit

SIMOND LONG DOWNEY

GEORGE IGNATIUS GARDINER

RALPH OLIN DULANY

THE GRADUATE SCHOOL

Doctor of Philosophy

JOHN ROBERT ADAMS, JR.

Dissertation:

B.S. University of Maryland, 1934 "The Synthesis of Some Diaryl

M.S. University of Maryland, 1935 Cyclopentadienes."

WILLIAM JAMES HART

A.B. George Washington Univ., 1932 "The Action of Salts Upon the pH

M.A. George Washington Univ., 1933 of some V_2O_5 Sols."

HUGH ANDREW HELLER

B.S. Rutgers University, 1930

M.S. Rutgers University, 1932

"The Spectrophotometric measurement of the indicator characteristics of some new Sulphonphthaleins."

CLARON OWENS HESSE

B.S. University of California, 1932

"Some physical and chemical changes associated with the maturation of Grimes and Jonathan apples on the tree and during storage."

WILLIAM APPLER HORNE

B.S. University of Maryland, 1934 "Part I—The synthesis and some

M.S. University of Maryland, 1935 properties of 1-Phenyl Heptane, 1-Cyclohexyl Heptane and n-Tridecane. Part II—The vapor phase oxidation of hydrocarbons."

- DAVID FAIRCHILD HOUSTON
B.A. Carleton College, 1927
M.S. George Washington Univ., 1932
- FRANK L. HOWARD
B.S. University of Maryland, 1934
- ROBERT ANTHONY LITTLEFORD
B.S. University of Maryland, 1933
M.S. University of Maryland, 1934
- GEORGE FRANCIS MADIGAN
B.S. University of Maryland, 1930
M.S. University of Maryland, 1933
- LEWIS PAUL MCCANN
A.B. Miami University, 1934
M.S. University of Maryland, 1935
- WARREN CAMPBELL McVEY
A.B. College of Emporia, 1929
M.S. University of Maryland, 1934
- IVAN ERNEST MILES
B.S. Mississippi State College, 1930
M.S. University of Florida, 1931
- ELIZABETH EDITH PAINTER
B.A. Goucher College, 1930
- HAROLD GEORGE SHIRK
B.S. Pennsylvania State College, 1935
M.S. University of Maryland, 1936
- ALEXANDER JAMES STIRTON
B.S. College City of Detroit, 1930
M.A. George Washington University, 1932
- ALBERT HOLMES TILLSON
A.B. College of Wooster, 1934
M.S. University of Maryland, 1935
- PASCHAL PHILIP ZAPPONI
B.A. College of Wooster, 1934
M.S. University of Maryland, 1936
- Dissertation:*
- "The palladium dehydrogenation of friedelinol."
- "The synthesis of 1,8-dimethyl picene."
- "A study of the life history of *Dactylometra Quinquecirrha*, L. Agassiz, and the taxonomic validity of this species."
- "A chemical investigation of the cause of hardpan formation in Southern Maryland soils."
- "Chromosome studies in verbena with special reference to the commercial varieties."
- "The synthesis of picene."
- "Rapid testing of soils for plant food deficiencies under southern conditions."
- "The determination of total body water of unanesthetized animals."
- "A study of oxygen respiration in corn and wheat kernels as measured by the Warburg manometer technique."
- "Aryl stearic acids."
- "The floral anatomy of the Auran-
tioideae."
- "The standard electrode potential of the mercury-mercurous iodate electrode."

Master of Arts

- ARA ASTOR ASADORIAN
JOHN SHARPLEY BAYLEY
CARL ALLEN CARLSON
SVEN S. DUNCAN
WILLIAM WILLIAMS EDWARDS
EDNA EARLE ELMORE
GERALD ELTON FOSBROKE
THOMAS SUMMERS GWYNN, JR.
RUSSELL CRALLE HAMMACK
MARY GRACE HANNA
ELMER PITNEY HARDELL
WILLIAM BURTON HIGGINS
FRANK TALIAFERRO HOADLEY
NELLIE RINE KOOKEN
- HYMAN N. LADEN
ALBERT NATHANSON
JESSE ARTHUR REMINGTON, JR.
MARY BROWNE RILEY
LOREN FLETCHER SCHOTT
GENEVA KERN-SKINNER
MILDRED LEE SKINNER
DOROTHY GREY SMITH
MARGRET WOLF SMITH
CLARE JEAN SPEAKER
W. BIRD TERWILLIGER
HENRY BERNARD WASKOW
THEOFIELD G. WEIS
AUGUSTINE EDWARD WINNEMORE

Master of Science

- CLYDE WILKINSON BALCH
DAVID HENRY BALDWIN, JR.
JOHN BLACKMORE
FRANCIS MILES BOWER
PAUL SHERWOOD BROOKS
DONALD SIDNEY BROWNLEE
JANE HANES CROW
GORDON FREDERICK DITTMAR
WILBUR IRVING DUVALL
JOSEPH LEONARD GOLDBERG
GRACE-LOUISE GREENWOOD
CHESTER W. HITZ
ALFRED DAMON HOADLEY
J. RUSSELL IVES
WALTER CASPAR JACOB
JOHN WELLINGTON KNOWLTON
HERMAN FINK KRAYBILL
NATHAN LEVIN
- HATTIE LOUISE MADDOX
MICHAEL J. PELCZAR, JR.
ALFRED BUHR PETTIT
JOHN EUGENE PEZZUTI
FLORA WALDMAN REID
ROY L. ROBERTSON
LEWIS ALLEN SCHNEBLY, JR.
DONALD EMERSON SHAY
CORNELIUS BARRETT SHEAR
CARL B. SMITH
AGNES PRISCILLA SÓPER
HELEN ESTHER SPICER
JOHN KEENAN TAYLOR
VIOLA COOK TEETER
MARY VIRGINIA TOMLINSON
MARIE ELIZABETH WENZEL
THOMAS MOORE WHITEMAN

COLLEGE OF AGRICULTURE

Bachelor of Science

LILLIAN BIALEK	CHARLES ERNEST KELLER, JR.
*JAMES WILLIAM BISHOP	AMIHUD KRAMER
JAMES HARRY BUCHHOLZ	ALBIN OWINGS KUHN
RAPHAEL FLOYD CAPLAN	RAYMOND VANDERMARK LEIGHTY
HENRY HURLEY CARTER	GLENN WORTHINGTON LEWIS
ANN ELIZABETH CARVER	ERNEST H. LUNG
RALPH EDWARD CLARK	RALPH RUDOLPH RAVENBURG
JOHN VINCENT CONNELLY	*JOHN MEREDITH RODIER
HENRY THOMAS CONVERSE, JR.	KYLE RUBLE
M. R. DEBRIDDI DEVAKUL	JOHN LOGAN SCHUTZ
CHARLES LEE DOWNEY	GEORGE WILLIAM SEABOLD, JR.
ELWOOD GEORGE FISHER	CHARLES HENRY SHAFFER, JR.
JOSEPH DUNBAR FRANZONI, III	CLAY WALTER SHAW
MERLE A. GARLETT	FRED DAVID SISLER
HAROLD EDWARD GAYHART	CALVIN LEROY SKINNER
WARREN HUBBARD GILBERTSON	HAROLD W. SMITH
JOHN S. GOLDSMITH	WILMER WATKINS STEINER
ABRAM ZIEGLER GOTTWALS	DAVID LEE STODDARD
BERNICE GRODJESK	*EUGENE THORNTON, JR.
JOHN HUDSON GUILL, JR.	DOROTHY SCHNEPPE WALL
ANNE MALIN HAYNES	DONALD HATHAWAY WILLIAMS
SALLY TAYLOR HAYNES	JOHN PAUL WINTERMOYER
ALLEN ERWIN HENKIN	SARAH ELIZABETH WISE
*BARBARA EVELYN HOBSON	SARA ANITA YEAGER
FREDERICK ANDREW JOHNSTON	

COLLEGE OF ARTS AND SCIENCES

Bachelor of Arts

JULIUS EMORY ACKERMAN	CHARLES HARVEY COOKE
HERBERT WEYBRIGHT BAKER	JOHN RAYMOND CORRIDON
ROBERT ELWOOD BAKER	*JEAN ANN COWIE
CHARLES H. BEEBE, JR.	*CHARLES HERSEY CULP
CARL BEHM, JR.	MARY FRANCES DOW
CHARLES LEE BENTON, JR.	*FRANCES EVELYN FULLER
JAMES BELT BERRY, JR.	*GORMAN E. GETTY
CHARLES AUGUSTUS BINSWANGER	FRANCIS JAMES GUNTHER
DAVID LEWIS BRIGHAM	PERRY IRVING HAY
ETHEL LOUISE BROCKMAN	JOSEPH HENDERSON
THOMAS CARROLL BROWN	PHILIP LEE HOAGLAND
*ROBERT G. CAMP	SOPHIA WAIDNER HOENES
V. NORMAN CARRICO	MARY JANE HOFFMAN
GERTRUDE CATHERINE COHEN	WARREN ANSON HUGHES

*Degree conferred September, 1937.

BERNICE E. JACOBS

*LANCELOT JACQUES, JR.
MALCOLM LESLIE JOHNS
*SAMUEL DALE KALIS
JOSEPH EDWARD KELLER
CHRISTINE KEMPTON
PAUL CHAPMAN KIERNAN
WILSON ADRIAN LANSFORD
THEODORE SEYBOLD LEHMAN
BARBARA RAE LEWIS
VENANCIO Q. LIBERATO
LOIS BARBARA LINN
RITA THERESA LITTLEFORD
EDWIN DENNETT LONG, JR.
MARGARET MARRIOTT
*STENA RUBY I. MATSON
BENJAMIN CURTRIGHT MCCLESKEY
ARLENE MARIE McLAUGHLIN
WILLIAM JAMESON McWILLIAMS
BERNICE MOLOFSKY
JOHN EDWIN MOORE
WILLIAM BOLLES MULLETT
CHARLES ABRAHAM PARK, JR.
HELEN JEAN PATERSON
PAUL RITNER PEPPER
WILLIAM SMITH PHILLIPS, JR.
B. SHEBA POTTS

STANFORD CHADWICK PRATT

*JESSE ARTHUR REMINGTON, JR.
DONALD WELLS RICHARDSON
VAUGHN EDWARD RICHARDSON
ADELAIDE SUZANNE SCHIFF
*DAVID STEVENSON SCRIVENER
BETTY B. SHAFFER
WILLIAM THOMAS SPRUILL
EVELYN MARR STEVENS
JOHN E. STONEBRAKER, JR.
MARGARET GERTRUDE THOMAS
ROBERT HUNTER THOMPSON
MARY ELIZABETH TOWNSEND
JOHN OLIVER TUNIS, JR.
CARLETON WILSON WAHL
SYLVIA RITA WALDMAN
GEORGE BOTHWELL WATSON
*JOAN KATHRYN MITCHELL WELLS
ROBERT LOUIS WELLS
JANET TOWER WERNER
MARY MAXINE WHITE
ROBERT PEARSON WHITE
RUBY ELIZABETH WILSON
JOHN ALBERT WOJTCZUK
JOHN FRANCIS WOLF
GEORGE FRANCIS WOOD
PAUL JACOB YEAGER

COLLEGE OF ARTS AND SCIENCES

Bachelor of Science

MAURICE DAVID ATKIN	LOIS ELD ERNEST
ROBERT EVERETT BARNETT	FRANK DEEN EVANS
JOSHUA WARFIELD BAXLEY, III	MARION MENDEL FRIEDMAN
JOSEPH JOHN BOWEN, JR.	MARGARET ALTA GREER
ROSWELL RUNKLE BOYER	HAROLD ALLAN GROTT
MARRIOTT WARFIELD BREDEKAMP	JOSEPH PEREZ HAIMOVICZ
ALEXANDER EMMANUIL BRODSKY, JR.	MORTON L. HAMBURGER
ROBERT JOB BURTON	BETTIE HARCUM
ELEANOR GRAHAM COOLEY	FRANK HOLBROOK JACKSON
WILLIAM FRANCIS COSTER	THEODORE KARDASH
PHILIP CRASTNOPOL	BERNARD KRAMER
ROBERT MARION CREAMER	*ROBERT HERBERT LAND
MILDRED DOROTHEA DONOHUE	JULIAN KEITH LAWSON, JR.
*MAX MILTON ELLISON	WILLIAM COOK LOWE
EDWIN EPSTEIN	IRVING ROBERT LOWITZ

*Degree conferred September, 1937.

THOMAS ELIAS MCGOURY
HARRY ANDREW MILLER
MARY ELIZABETH MILLER
*JOSEPH HOPE MORGAN
FELIX RAYMOND MORRIS
*IVAN EDWARD NEDOMATSKY
JAMES DORSEY OWENS
ALEXANDER SADLE
HARRY SCHWARTZ
ROGER WILLIAM SNYDER

MITCHEL SOKAL
WILLIAM NOURIS THIES
ALICE JANE WALKER
JANICE MARGUERITE WERT
ALFRED CASE WHITON
EDWARD JOSEPH WILLEY
ELIZABETH LOUISE WOLFE
JOHN HENDERSON WOODELL
EDMOND GROVE YOUNG
*DANIEL LEONARD ZALIS

SCHOOL OF DENTISTRY

Doctor of Dental Surgery

ALVIN AARON
MILTON BARON ASBELL
CARL ELLIOTT BAILEY
EDWARD KEEFER BAKER, JR.
JOHN PAUL BARKER
BRADLEY BINGHAM BARNES
ALEX LOUIS BORO
JAMES TITUS CABLER
FRANK PETER CAMMARANO
HAROLD JOSEPH CARRIGAN
SIGMUND COHEN
DAVID COOPER
PAUL EDWARD CRAMER
EDWIN DELLER CRUIT
RICHARD SALVATORE DONOFRIO
LEONARD DUBOFF
WILLIAM ERlich
ALEXANDER BERNARD ESKOW
WILBUR NELSON FALK
CHARLES CALHOUN FARRINGTON
RAYMOND FINEGOLD
HENRY JOHN GEMSKI
NICHOLAS ANTHONY GIUDITTA, JR.
REED T. GOE
JULIAN WETMORE HABERCAM
JACK STANLEY HAGGERTY
PERLEY BURTON HARTWELL, JR.
ROLAND WILLIAM HEIL
WILLIAM BASIL JOHNSON, JR.
ARTHUR JAMES JOHNSTON
CHARLES SAUL JONAS
LOUIS DETROW KERN
GEORGE CARL KRAUS

FRANK A. LASLEY, JR.
IRVIN MARTIN LAU, JR.
LEONARD LEE LEVIN
SIDNEY E. LIBERMAN
EUGENE DAVISSON LYON
DAVID BENJAMIN MARGULIES
EDMOND FORMHALS MARSH
LAWRENCE PHILIP MASSUCCO
CRAIG PRESCOTT MATHIAS
CHARLES PATTERSON MCCAUSLAND
CLARENCE VADEN MCMILLIN
STANLEY JOSEPH MEADOWS
HARRY BENJAMIN MENDELSON
JACK MENEFFEE MESSNER
HUGH BERYL MORRIS
EDWARD JOSEPH MULLER
EDWARD HERMAN MYER, JR.
FLOYD WARREN NEAL
OTTO MORRIS RICH
IRVIN ROITMAN
WILLIAM HENRY RYAN
DAVID SALTMAN
STANLEY G. SILVERMAN
EDWIN ANTHONY SLAVINSKY
LAWRENCE CURTIS SMYTH
JERRY JAMES STEPAN
FORD ATWOOD STEWART
RAYMOND MARWIN THEODORE
SEYMOUR TUROK
STERLING JOHN WEIGEL
CARL VICTOR WESTERBERG
ELIAS OGDEN WHEELER
ERNEST VINCENT WILLIAMS

*Degree conferred September, 1937.

COLLEGE OF EDUCATION

Bachelor of Arts

RICHARD ROWLAND CLOPPER
CHARLOTTE FITZGERALD DURRANT
*EDNA EARLE ELMORE
*ALBERT BERNARD FARRELL
*MINNIE GOMBOROV
THOMAS WHITE HALL
ISABEL HAMILTON
DORIS ELLEN HARLAN
MARY MARTHA HEAPS
MARYELENE HEFFERNAN
*CARLISLE H. HUMELSINE
LILLIAN KATZ
EILEEN ANNETTE KELLERMANN
MARY ELIZABETH HELEN KRUMPACH
ELSIE GENEVIEVE LONG
GRACE RUTH LOVELL
RUTH VIRGINIA LOWRY

EDNA CLARE MAXWELL
BERNICE ELIZABETH O'KEEFE
*MARGARET BARBARA PAHLMAN
BELLA ROSE POLACK
*KATHRYN EUGENIA PULTZ
GRACE ELLEN ROBINSON
*MORTIMER SCHWARTZ
ABRAHAM SCOP
KATHLEEN MCCOLLUM SHEARER
RICHARD BRINSLEY SHERIDAN, JR.
CORA LEE SHIPLEY
FAYE D. SNYDER
ROSS HOOD SULLIVAN
HARRY RAYMOND VOGTMAN
BERTHA WEISBERG
VIVIAN DORIS WISER

*Degree conferred September, 1937.

Bachelor of Science

*LORETTA PORTER ALDERTON
*CHARLES MILTON ARNOLD
*ALICE JANETTE AYERS
ANNE ASHBY BEAL
JOHN VERNON BIRKLAND
*HOLLIS ROBERTA BOYD
*EUNICE EVELINE BURDETTE
BEULAH MARY BURTON
MARJORIE HAINES CAMPBELL
MARY VIRGINIA CONWAY
*ISADOR J. DALINSKY
SHIRLEY FLORENCE DANFORTH
ETHEL ELIZABETH ENDERLE
MARION ELISE ESCH
*MERLE DALLAS FRANTZ
GILBERT GLIME
CECELIA ELIZABETH GOLDSMITH
*NELLIE GRIFFITH HARDELL
THOMAS DANIEL HARRYMAN
LAWRENCE COLEMAN HEADLEY
LAURA FRANCES HEAPS
RUTH WILSON HEINTZE

*MILDRED M. HICKMAN
ELIZABETH JANE HILTON
DOROTHY MERRIAM HOBBS
*ADRIENNE ROE HOWARD
RALPH W. KELLER
FRANK DISNEY LEE
*FRANK HEDGES LEWIS
GEORGIANA CHAPIN LIGHTFOOT
MARGARET ESTHER MATTHEWS
ROBERT MAZER
ADEN THOMAS MILLER
ELIZABETH ANN MOORE
ALICE SUSAN MORGAN
*MAUD FROTHINGHAM ROBY
*MICHAEL SALTZMAN
CAROL JOHNSON SCHAEFFER
RUTH CLARA SHAMBERGER
ROBERTA FRANCES SHAW
DOROTHY LILLIAN SINCLAIR
RUTH ROTHWELL SMITH
MICHAEL G. SURGENT
MARGARET ELLEN SWANSON

*Degree conferred September, 1937.

LUCILLE BANGHARDT WELLER
EDITH HEYWARD WETHERBY
ELWOOD LEWIS WHEELER

WILLIAM CAROAL WOLFE
*RUTH RICE WOLFORD

**Bachelor of Science
Industrial Education**

A. HARRIS BAER
RALPH BARGTEIL
HOWARD SHERRY BOOTE
BESSIE BRUSOWANKIN
JOSEPH GEORGE FISHER

NORMAN NATHAN FREEDMAN
STANLEY LOUIS HEYLMUN
FRANK KIDD
MAURICE M. WEISBERG
CHARLES WOLFE

Teachers' Diplomas

*ALICE JANETTE AYERS
BEULAH MARY BURTON
RICHARD ROWLAND CLOPPER
*NONA ELOISE DAHN
SHIRLEY FLORENCE DANFORTH
MARY FRANCES DOW
ETHEL ELIZABETH ENDERLE
LOIS ELD ERNEST
MERLE A. GARLETTS
WARREN HUBBARD GILBERTSON
*MINNIE GOMBOROV
THOMAS WHITE HALL
MARY MARTHA HEAPS
MARYELENE HEFFERNAN
RUTH WILSON HEINTZE
ELIZABETH JANE HILTON
DOROTHY MERRIAM HOBBS
MARY JANE HOFFMAN
MARY ELIZABETH JENKINS
LILLIAN KATZ
RALPH W. KELLER
MARY ELIZABETH HELEN KRUMPACH
RUTH VIRGINIA LOWRY
ERNEST H. LUNG
*STENA RUBY I. MATSON

ROBERT MAZER
ELIZABETH ANN MOORE
ALICE SUSAN MORGAN
HELEN JEAN PATERSON
BELLA ROSE POLACK
FLORA WALDMAN REID
GRACE ELLEN ROBINSON
RUTH CLARA SHAMBERGER
ROBERTA FRANCES SHAW
RICHARD BRINSLEY SHERIDAN, JR.
CORAL LEE SHIPLEY
DOROTHY LILLIAN SINCLAIR
RUTH ROTHWELL SMITH
FAYE D. SNYDER
MICHAEL G. SURGENT
MARGARET ELLEN SWANSON
VIOLA COOK TEETER
BERTHA WEISBERG
LUCILLE BANGHARDT WELLER
EDITH HEYWARD WETHERBY
ELWOOD LEWIS WHEELER
MARY MAXINE WHITE
VIVIAN DORIS WISER
JOHN ALBERT WOJTCZUK
WILLIAM CAROAL WOLFE

COLLEGE OF ENGINEERING

Civil Engineer

ROBERT EDWARD DUNNING
EVERETT S. LANK

LEWIS GEORGE PHILLIPS
HALE FRENCH SEHORN

*Degree conferred September, 1937.

Electrical Engineer

ALLEN CARROLL STEPHENS

NICHOLAS VOLNEY STONESTREET

Bachelor of Science

JOHN TAYLOR ANDREWS, JR.
ALBERT PAUL BACKHAUS
JOSEPH HARRY BENNETT
FREDERICK MITCHELL BISHOFF
GEORGE ALFRED BOWMAN
GEORGE CLINTON BROOKHART
JOHN RICHARD BROWNING
HAROLD CLADNY
RALPH ALOYSIUS COLLINS, JR.
MALCOLM NEEDHAM COLLISON
FRANCIS THOMAS DEARMEY
ROBERT SCHNEPFE DIGGS
PAGE GOLDBECK
PAUL GOLDBERG
VERNON HENRY GRAY
FREDERICK HARRIS
*MATHEWS JOSEPH HASPERT
CURTIS LEFRAY HOLLISTER
AUSTIN SMITH HORMAN
EDWARD JAMES KENNEDY
FREDERICK HENRY KLUCKHUHN
ARNOLD ALVA KORAB

HENRY LATTERNER, JR.
ROBERT LEE MATTINGLY
WILLIAM GRANT MAYNARD
ROY CRAWFORD MEINZER
LEE MORGAN
HERBERT MALCOLM OWENS
JOHN RAYMOND PARCE
ADON WILSON PHILLIPS
CHARLES HENRY PIERCE, JR.
RAYMOND SCOTT PUTMAN
PAUL V. ROUNDY, JR.
*MERRIWETHER LEWIS ROYLANCE
ALFRED EVERETT SAVAGE
IRVIN R. SCHREIBER
THOMAS NEWTON SHAFFER
JOHN LOUIS SIEMS, JR.
WARNER TALIAFERRO SMITH
HAROLD CLIFTON SPERRY
JAMES TURNBULL
HOWARD ALBERT VERNAY, JR.
ROBERT LUCIUS WALTON
REUBEN WOLK

COLLEGE OF HOME ECONOMICS

Bachelor of Science

JOSEPHINE RAMSEY ALLEN
MARY A. BEGGS
ELINOR COURTNEY BROUGHTON
MIRIAM BROWN
NELLIE LAURA BURDETTE
LETITIA SCARLETT BURRIER
KATHERINE CALDWELL
ELEANOR M. A. CRUIKSHANK
*NONA ELOISE DAHN
KATHERINE ISABEL DAVIS
JEAN MARY ANN DULIN
IDA ANTOINETTE FISHER
JOSEPHINE MILLS GOOD
MARGARET JEANNETTE RANKIN
GORSUCH
IRENE SINCLAIR GOULD

MILDRED LOUISE HEARN
HARRIET ELIZABETH HUGHES
VERA WALKER HUTTON
EVELYN MARGUERITE JEFFERSON
MARY ELIZABETH JENKINS
AUDREY SNOWDEN JONES
HELEN LOUISE KAYLOR
RUTH E. KNIGHT
MARY GREBB KRAUSS
LOIS MARY KUHN
BETTY LOUISE LYONS
*DOROTHY VIRTIE MILLAR
ELEANOR KATHARYN QUIRK
RUTH CAROLYN REVILLE
ANNE HARRIET ROSIN
ESTHER RAND WELLINGTON

*Degree conferred September, 1937.

SCHOOL OF LAW

Bachelor of Laws

ROBERT HARRIS ARCHER, JR.	ABE SIDNEY KARASIK
WILLIAM BERNARD ATHEY, II.	†ALVIN KATZENSTEIN
JOHN KENT BARBOUR, JR.	†CALEB REDGRAVE KELLY
FREDERICK HENRY BARCLAY, JR.	MILTON FRANKLIN KIRSNER
JOHN HERBERT BARRETT, JR.	JOHN WILLIAM LONG
THOMAS ROGERS BARTLETT	†RICHARD HARVEY LOVE
S. SCOTT BECK, JR.	JOHN EDGAR MAGERS, JR.
PAUL ELMER BENJAMIN	FREDERICK CHARLES MALKUS, JR.
LEONARD SAMUEL BERNSTEIN	†BERNARD STERN MEYER
JAMES FRANKLIN BOYD	A. MILTON MILLER
OMAR KLAUDER BOYD	GEORGE OSWALD MOTRY
JOHN LAWRENCE CLARK	H. ANTHONY MUELLER
CHARLES WARREN COLGAN	DONALD GAINES MURRAY
S. RAYMOND DUNN	ROY LEWIS RASCOVAR
*FRANK PATTERSON DUNNINGTON, JR.	LOUIS MILTON RIEHL
BENJAMIN ARTHUR EARNSHAW	JOHN MACDONALD ROBB
JOSEPH A. ELLIS	WALTER ROTHSCHILD
EDWIN WALTER FILLER	†JESSE JAY RUBIN
LEROY LEVALD GAMSE	EUGENE JOSEPH SATTLER
†SYLVAN ADLER GARFUNKEL	MAX SCHERR
LEE SETH GILLIS	ARNOLD SILVERMAN
HERMAN GOLDBERG	JOHN EDWARD STARR
LOUIS LAZARUS GOLDSTEIN	EDWARD DANIELS STORM
HENRY JOSEPH HARDING, JR.	CHARLES WELLINGTON THOMPSON
DAVID ARTHUR HARKNESS	MILES TAWES TULL
ISAAC HECHT	CORNELIUS WHALIN
†EDWARD D. HIGINBOTHOM	THOMAS BAYARD WILLIAMS, JR.
SAMUEL HOPKINS	GEORGE LEWIS WILLIAMSON
JOHN EDWIN JACOB, JR.	

Certificates of Proficiency

NORMAN EDGAR COOPER	RALPH HAYWARD FRANCE
CLAYTON WILBUR DANEKER	†GRACE HOFFMAN

SCHOOL OF MEDICINE

Doctor of Medicine

MILTON GOLDMAN ABARBANEL	MELVIN NACHLAS BORDEN
DANIEL J. ABRAMSON	JOHN ZIMMERMAN BOWERS
WILLARD APPLEFELD	STANLEY EDWARD BRADLEY
MAX BAUM	WILBUR STARR BROOKS
ROBERT ALEXANDER BONNER, JR.	MANUEL BROWN

*Degree conferred September, 1937.

†With honor.

JOHN JAMES BUNTING.
TIMOTHY ANDREW CALLAHAN, JR.
BURTON CHANCE, JR.
HILLIARD COHEN
HAROLD LEO COLLERAN
JOHN FRANCIS COOLAHAN
*ROBERT FRANCIS COONEY
DONALD DWIGHT COOPER
JAIME LUIS COSTAS-DURIEUX
ROBERT CLIFFORD CRAWFORD
MICHAEL JOSEPH DAUSCH
WILLIAM ANTHONY DODD
VICTOR DOLFMAN
ARNOLD HERMAN EICHERT
AARON FEDER
LESTER IRVING FOX
SAMUEL LOUIS FOX
*JAMES FRENKIL
LOUIS CALVIN GAREIS
JOSEPH MATHIAS GEORGE, JR.
SAMUEL GERTMAN
HARRY GIBEL
MILTON GINSBERG
EDWARD LEWIN GLASSMAN
LOUIS E. GOODMAN, JR.
SYLVAN CHAUNCEY GOODMAN
FLORENCE HARRIS GOTTDIENER
SIDNEY GOVONS
FREDERICK LEWIS GRAFF
WILLIAM LEHMAN GUYTON
JOHN HENRY HAASE
SIDNEY HARRIS
MARY LODEMA HAYLECK
JOHN RALPH HORKY
*JAMES KNOX INSLEY, JR.
FRANCIS JOSEPH JANUSZESKI
MILTON AARON KATZ
HARRY KELMENSEN
JOHN JOSEPH KNOX
JEROME KOTLEROFF
ALBERT BARKER KUMP
GERALD INDEPENDENCE KURTZ
CELESTE CONSTANCE LAUVE
MILTON LAYDEN
LUTHER ALBERT LENKER
MORTON HIRSCH LIPSITZ

*Degree conferred September, 1937.

HILTON LUIS LOPEZ
WILLIAM RANDOLPH LUMPKIN
ERNEST MICHAELSON
ARTHUR VINCENT MILHOLLAND
CLARENCE LEE MILLER
ROYSTON MILLER
JAMES HAIGHT MINISZEK
LEONARD CARL MOLOFSKY
SAMUEL NOVEY
LAURENCE CALDWELL POST
GERALDINE KENNEDY POWELL
JOHN RIZZOLO
PAUL ROMAN
JUAN ANTONIO ROSSELLO-MATANZO
HENRY ROTHKOPF
BERNARD JOSEPH SABATINO
*SIDNEY SAFRAN
JOHN FERDINAND SCHAEFER
SIDNEY SCHERLIS
ROBERT A. SCHLESINGER
MAURICE JACOB SCHMULOVITZ
JOHN MATTHAI SCOTT
CHARLES VINCENT SEVCIK
ROBERT CLAY SHEPPARD
EDWARD SIEGEL
DONALD JARED SILBERMAN
JOHN PRINZ SMITH
EMANUEL SPREI
AARON STEIN
MORRIS WILLIAM STEINBERG
ADAM GEORGE SWISS
BERNARD OSCAR THOMAS, JR.
JAMES UPSHUR THOMPSON
WINFIELD LYNN THOMPSON
FREDERICK JOSEPH VOLLMER
JOHN ALFRED WAGNER
HERBERT LEONARD WARRES
JOHN EDWARD WAY
ALVAN ABRAM WELFELD
HARRY FLETCHER WHITE, JR.
SAMUEL COTTRELL WHITE
ALBERT S. WINER
THEODORE ENGLAR WOODWARD
RICHARD WALKER WORTHINGTON, JR.
MICHAEL WULWICK
KENNARD YAFFE

SCHOOL OF NURSING

Graduate in Nursing

VICTORIA WILLARD BATES	MARY ESTHER KALBAUGH
ANNA MILDRED BAUGHMAN	LOUISE EMILY KROH
ADA GREY BOWLING	ANNE PARRY LLEWELLYN
KATHARINE ELIZABETH BURBAGE	SARA JANE MAYS
DOROTHY ELLEN COLEMAN	LENA McNABB
MYRTLE ASHLEY COLEMAN	VIVIAN VIRDIN MONATH
NANCY VIRGINIA CONNELLY	INGRID ELIZABETH SELKAMAA
MARY ANN DEES	KATHERINE ELIZABETH STEPHENS
DOROTHY LEE DIXON	DORIS VIRGINIA STEPHENSON
MARY RACHEL ECKENRODE	FLORA MITCHELL STREETT
TREVA LOU GAMBILL	VIRGINIA ANNETTE TERRY
ALICE VIRGINIA GARRISON	IVA LOIS THARPE
CAROLA BEATRICE GRAHAM	ALICE JANE WALKER
LOIS CATHERINE HANNA	JANICE MARGUERITE WERT
GWENDOLYN HAUGH	KATHRYN WILSON
ANNA LEE HEDRICK	IRMA HOTT WINFIELD
NELDA KALAR	

SCHOOL OF PHARMACY

Bachelor of Science in Pharmacy

ALFRED IRVING AARONSON	BENJAMIN SAMUEL LEVIN
MERLIN AYLER BEAM	JACOB BENNY LEVIN
RICHARD STEVENSON BIXLER	NORMAN JACK LEVIN
BERNARD ISAAC COHEN	BERNARD LEVY
RALPH COLVIN	HOWARD EDMOND LOFTUS
JOSEPH LEE COMBS, JR.	OLGA PAULINE MATELIS
*WARREN EUGENE CRANE	WILLIAM AUGUST MORGENSTERN
SAM EDLAVITCH	RUTH VIRGINIA MUEHLHAUSE
MELVIN LUTHER FLOYD	*ARTHUR FRANCIS NOVAK
SIDNEY FRIBUSH	BERNICE VIVIAN NURKIN
WALTER CHRISTIAN GAKENHEIMER	MELVIN JOSEPH OLESZCZUK
ROLAND PAUL GALLEY	ALBERT PEARLMAN
HARRY BENJAMIN GENDASON	ISADORE MARVIN PRESSMAN
ALPHONSUS STEPHEN GINAITIS	FRANK STANLEY PUCKLIS
FRANK JULIUS GREGOREK	JOHN GEORGE RHODE
GEORGE PHILIP HAGER	JACOB LOUIS RICHMAN
KENNETH ELDRED HAMLIN, JR.	MYER STOLER
BERNICE HEYMAN	BERNARD SUSSMAN
CARVILLE BENSON HOPKINS	ROBERT EDWARD THOMPSON
CHARLES JAROWSKI	IRVIN LOUIS WACHSMAN
JOSEPH KAMINKOW	MILTON MALCOM WAXMAN
MORTON KATZ	THOMAS CLYDE WEBSTER
GORDON WILLIAM KELLEY	JOSEPH CARLTON WICH
BENJAMIN KOBIN	HAROLD ZEROFSKY
*CHESTER GEORGE LEONARD	HENRY PAUL ZETLIN
KOSAKOWSKI	

*Degree conferred September, 1937.

HONORS, MEDALS, AND PRIZES, 1937-38

Elected Members of Phi Kappa Phi, Honorary Society

JOHN TAYLOR ANDREWS, JR.	WILLIAM APPLER HORNE
CHARLES HOWARD BEEBE, JR.	MARY ELIZABETH JENKINS
ALEXANDER EMMANUIL BRODSKY, JR.	LILLIAN KATZ
JOHN RICHARD BROWNING	ALBIN OWINGS KUHN
LETITIA SCARLETT BURRIER	JULIAN KEITH LAWSON, JR.
MARJORIE HAINES CAMPBELL	ROBERT LEE MATTINGLY
ELEANOR GRAHAM COOLEY	MARY ELIZABETH MILLER
PHILIP CRASTNOPOL	FELIX RAYMOND MORRIS
SHIRLEY FLORENCE DANFORTH	BELLA ROSE POLACK
MARION ELISE ESCH	VIRGINIA LEE RILEY
ELWOOD GEORGE FISHER	GEORGE WILLIAM SEABOLD, JR.
IDA ANTOINETTE FISHER	ELIZABETH BROWN SHERRILL
MARION MENDEL FRIEDMAN	FAYE D. SNYDER
VERNON HENRY GRAY	HAROLD CLIFTON SPERRY
BERNICE GRODJESK	VIOLA COOK TEETER
JOSEPH PEREZ HAIMOVICZ	JOHN PAUL WINTERMOYER
CLARON OWENS HESSE	CHARLES ANTHONY YOUCH
MARY JANE HOFFMAN	

Elected Members of Sigma Xi, Honorary Scientific Fraternity

JOHN ROBERT ADAMS, JR.	IVAN ERNEST MILES
HUGH ANDREWS HELLER	HAROLD GEORGE SHIRK
WILLIAM APPLER HORNE	ALEXANDER JAMES STIRTON
CHARLES SAMUEL LOWE	ALBERT HOLMES TILLSON
LEWIS PAUL MCCANN	PASCHAL PHILIP ZAPPONI
WARREN CAMPBELL McVEY	

Citizenship Medal, Offered by Dr. H. C. Byrd, Class of 1908

ROBERT LUCIUS WALTON

Citizenship Prize, Offered by Mrs. Albert F. Woods

RUTH VIRGINIA LOWRY

Athletic Medal, Offered by the Class of 1908

WILLIAM CAROAL WOLFE

Maryland Ring, Offered by Charles L. Linhardt

LAWRENCE COLEMAN HEADLEY

Goddard Medal, Offered by Mrs. Annie K. Goddard James

EDWARD MARTIN WHARTON

Sigma Phi Sigma Freshman Medal

JOHN CHESLEY MARZOLF

Delta Delta Delta Sorority Medal

FRANCES JANE STOFFER

Medal and Junior Membership, Offered by the American Institute of Chemists

JULIAN KEITH LAWSON, JR.

Dinah Berman Memorial Medal, Offered by Benjamin Berman

JOSEPH MOSSLER MARZOLF, JR.

Mortar Board Cup

SHIRLEY FLORENCE DANFORTH

Honor Key, Offered by the Class of 1926 of the School of Business Administration

CHARLES H. BEEBE, JR.

Omicron Nu Sorority Medal

DOROTHY MAE GREEN

Service Award

ELINOR COURTNEY BROUGHTON

The Diamond Back Medals

ROBERT ELWOOD BAKER	LAWRENCE GRANT HOOVER, JR.
WILLIAM JAMESON MCWILLIAMS	MARY MARTHA HEAPS
HERBERT MALCOLM OWENS	HELEN LUCILLE REINDOLLAR
MARGARET LESLIE MASLIN	

The Terrapin Medals

GUSTAVUS A. WARFIELD	NORA LOUISE HUBER
ROBERT PAUL BENBOW	JOHN TAYLOR ANDREWS, JR.

The Old Line Medals

CHRISTINE KEMPTON	RUTH VIRGINIA LOWRY
JEROME SPILMAN HARDY	JOHN FRANCIS WOLF
IRVING PHILLIPS	

Governor's Drill Cup

COMPANY M, COMMANDED BY CADET CAPTAIN EDWIN DENNETT LONG, JR.

Reserve Officers' Association Award

CADET CAPTAIN EDWIN DENNETT LONG, JR.

Military Medal, Offered by the Class of 1899

CADET THOMAS WILSON RILEY, JR.

Alumni Military Cup

SECOND PLATOON, COMPANY E, COMMANDED BY
CADET FIRST LIEUTENANT PERRY IRVING HAY

The Scabbard and Blade Award, to the Commander of the Winning Platoon

CADET FIRST LIEUTENANT PERRY IRVING HAY

Pershing Rifles Gold Metal to each Member of Winning Squad

CADET CORPORAL ALAN R. MILLER	CADET RICHARD F. HUTCHINSON
CADET FRANK C. BORENSTEIN	CADET WILSON G. INGRAHAM
CADET JOSEPH J. DEVLIN	CADET PERSHING L. MONDORFF
CADET WILLIAM B. HAGAN	CADET ROBERT D. RAPPLEYE

William Randolph Hearst Rifle Match Medals

CADET GEORGE ALFRED BOWMAN	CADET WARREN PRUDEN DAVIS
CADET ROBERT LEE MATTINGLY	CADET GEORGE EDWARD MEEKS
CADET THOMAS WILSON RILEY	

Third Corps Area Intercollegiate Rifle Match Championship Medals

CADET GEORGE ALFRED BOWMAN	CADET RALPH ALOYSIUS COLLINS, JR.
CADET WARREN PRUDEN DAVIS	CADET JOHN FRANCIS GREENIP
CADET LAWRENCE HOWARD HASKIN	CADET ALDEN ELON IMUS
CADET ROBERT WYNNE LAUGHEAD	CADET ROBERT LEE MATTINGLY
CADET GEORGE EDWARD MEEKS	CADET THOMAS WILSON RILEY

National Intercollegiate Rifle Match Championship Medals

CADET GEORGE ALFRED BOWMAN	CADET RALPH ALOYSIUS COLLINS, JR.
CADET WARREN PRUDEN DAVIS	CADET JAMES F. EDGERTON
CADET JOHN FRANCIS GREENIP	CADET LAWRENCE HOWARD HASKIN
CADET RAYMOND LOUIS HODGES	CADET ALDEN ELON IMUS
CADET JAMES MICHAEL LANIGAN	CADET ROBERT WYNNE LAUGHEAD
CADET ROBERT LEE MATTINGLY	CADET JOHN CHESLEY MARZOLF
CADET GEORGE EDWARD MEEKS	CADET THOMAS WILSON RILEY
CADET FLOYD ALLISON SOULE	

Military Department Gold Medals

CADET GEORGE EDWARD MEEKS	CADET ALDEN ELON IMUS
---------------------------	-----------------------

A. L. Mehring All-American Gold Medal for Rifle Competition

CADET GEORGE EDWARD MEEKS

A. L. Mehring All-American Silver Medal for Rifle Competition

CADET ROBERT WYNNE LAUGHEAD

Pershing Rifles National Rifle Championship Medals

CADET WARREN PRUDEN DAVIS	CADET JAMES MICHAEL LANIGAN
CADET ROBERT WYNNE LAUGHEAD	CADET ROBERT LEE MATTINGLY
CADET THOMAS WILSON RILEY	

National Society of Pershing Rifles Medals

CADET JOHN CHESLEY MARZOLF, Gold Medal
CADET THOMAS EUGENE WATSON, JR., Silver Medal
CADET WILLIAM ARTHUR MAIDENS, Bronze Medal

WAR DEPARTMENT AWARDS OF COMMISSIONS
AS SECOND LIEUTENANTS

The Infantry Reserve Corps

HERBERT WEYBRIGHT BAKER	BENJAMIN CURTRIGHT McCLESKEY
ROBERT ELWOOD BAKER	WILLIAM JAMESON McWILLIAMS
ROBERT EVERETT BARNETT	JOHN EDWIN MOORE
JAMES BELT BERRY, JR.	WILLIAM BOLLES MULLETT
FREDERICK MITCHELL BISHOFF	HERBERT MALCOLM OWENS
GEORGE ALFRED BOWMAN	PAUL RITNER PEPPER
JOHN RICHARD BROWNING	CHARLES HENRY PIERCE, JR.
WILLIAM CULLEN BRYANT	RAYMOND SCOTT PUTMAN
RALPH ALOYSIUS COLLINS, JR.	RALPH RUDOLPH RAVENBURG
HENRY THOMAS CONVERSE, JR.	SAMUEL WINCHESTER REEVES, III
CHARLES LEE DOWNEY	DONALD WELLS RICHARDSON
JOHN JOSEPH EGAN, JR.	JOHN LOGAN SCHUTZ
JOSEPH PEREZ HAIMOVICZ	CLAY WALTER SHAW
PERRY IRVING HAY	ROSS WENDEL SHEARER
CHARLES CROMPTON HEATON	BENJAMIN BISER SHEWBRIDGE
WARREN ANSON HUGHES	FRED DAVID SISLER
JOHN STARK JACOBS	HAROLD WALTER SMITH
RALPH WALDO KELLER	ROBERT LUCIUS WALTON
EDWIN DENNETT LONG, JR.	JOHN FRANCIS WOLF
JOHN CAMERON LYNHAM, JR.	LEON RYNO YOURTEE, JR.
ROBERT LEE MATTINGLY	

HONORABLE MENTION

College of Agriculture

First Honors—GEORGE WILLIAM SEABOLD, JR., BERNICE GRODJESK, ELWOOD GEORGE FISHER, ALBIN OWINGS KUHN, JOHN PAUL WINTERMOYER.

Second Honors—MERLE A. GARLETTS, ALLEN ERWIN HENKIN, HENRY HURLEY CARTER, AMIHUUD KRAMER.

College of Arts and Sciences

First Honors—ALEXANDER EMMANUIL BRODSKY, JR., JULIAN KEITH LAWSON, JR., ROBERT PEARSON WHITE, PHILIP CRASTNOPOL, MARY ELIZABETH MILLER, ELEANOR GRAHAM COOLEY, MARION MENDEL FRIEDMAN, MARY JANE HOFFMAN, CHARLES H. BEEBE, JR., GERTRUDE CATHERINE COHEN, JOSEPH PEREZ HAIMOVICZ, FELIX RAYMOND MORRIS.

Second Honors—ADELAIDE SUZANNE SCHIFF, BETTIE HARCUM, MARRIOTT WARFIELD BREDEKAMP, ALFRED CASE WHITON, LOIS ELD ERNEST, ARLENE MARIE McLAUGHLIN, EDMOND GROVE YOUNG, IRVING ROBERT LOWITZ, MAURICE DAVID ATKIN, CHARLES AUGUSTUS BINSWANGER, MARGARET GERTRUDE THOMAS.

College of Education

First Honors—SHIRLEY FLORENCE DANFORTH, MARJORIE HAINES CAMPBELL, LILLIAN KATZ, FAYE D. SNYDER, BELLA ROSE POLACK, RICHARD ROWLAND CLOPPER.

Second Honors—GILBERT GLIME, MARION ELISE ESCH, MARY ELIZABETH HELEN KRUMPACH, CAROL JOHNSON SCHAEFFER, GRACE ELLEN ROBINSON, ROBERT MAZER.

College of Engineering

First Honors—JOHN TAYLOR ANDREWS, JR., ROBERT LEE MATTINGLY, VERNON HENRY GRAY, HAROLD CLIFTON SPERRY.

Second Honors—JOHN RICHARD BROWNING, CHARLES HENRY PIERCE, JR., ROY CRAWFORD MEINZER, HERBERT MALCOLM OWENS.

College of Home Economics

First Honors—MARY ELIZABETH JENKINS, LETITIA SCARLETT BURRIER, IDA ANTOINETTE FISHER.

Second Honors—ESTHER RAND WELLINGTON, HARRIET ELIZABETH HUGHES, EVELYN MARGUERITE JEFFERSON.

School of Dentistry

University Gold Medal for Scholarship
EUGENE DAVISSON LYON

Certificate of Honor

SIDNEY E. LIBERMAN	FLOYD WARREN NEAL
CARL ELLIOTT BAILEY	JACK MENEFEER MESSNER
GEORGE CARL KRAUS	

School of Law

Elected to the Order of the Coif

SYLVAN ADLER GARFUNKEL	RICHARD HARVEY LOVE
EDWARD D. HIGINBOTHOM	BERNARD STERN MEYER
ALVIN KATZENSTEIN	JESSE JAY RUBIN

Alumni Prize for the Best Argument in the Honor Case in the Practice Court
JOHN HERBERT BARRETT, JR.

George O. Blome Prizes to Representatives on the Honor Case
in the Practice Court

JOHN HERBERT BARRETT, JR.	BERNARD STERN MEYER
ALVIN KATZENSTEIN	WALTER ROTHSCHILD

School of Medicine
University Prize Gold Medal
STANLEY EDWARD BRADLEY

Certificates of Honor
AARON FEDER MORTON HIRSCH LIPSITZ
SIDNEY HARRIS EMANUEL SPREI
THEODORE ENGLAR WOODWARD

The Dr. A. Bradley Gaither Memorial Prize of \$25.00 for the Best Work in Genito-Urinary Surgery during the Senior Year

WILLIAM LEHMAN GUYTON

The Samuel M. Shoemaker Memorial Prize of \$25.00 for the Best Essay on "Milk in Relation to Public Health" written by a student in the Senior Class
JEROME KOTLEROFF

School of Nursing
The Janet Hale Memorial Scholarship, given by the University of Maryland Nurses' Alumnae Association, to Pursue a Course in Administration, Supervisory, or Public Health Work at Teachers College, Columbia University, to the Student Having the Highest Average in Scholarship

INGRID ELIZABETH SELKAMAA

The Elizabeth Collins Lee Prize to the Student Having the Second Highest Average in Scholarship

ALICE VIRGINIA GARRISON

The Mrs. John L. Whitehurst Prize for the Highest Average in Executive Ability

GWENDOLYN HAUGH

The Edwin and Leander M. Zimmerman Prize for Practical Nursing and for Displaying the Greatest Interest and Sympathy for the Patients

GWENDOLYN HAUGH

The University of Maryland Nurses' Alumnae Association Pin, and Membership in the Association, for Practical Nursing and Executive Ability

SARA JANE MAYS

School of Pharmacy
Gold Medal for General Excellence
GEORGE PHILIP HAGER

The William Simon Memorial Prize for Proficiency in Practical Chemistry
KENNETH ELDRED HAMLIN, JR.

The L. S. Williams Practical Pharmacy Prize
WALTER CHRISTIAN GAKENHEIMER

The Conrad L. Wich Botany and Pharmacognosy Prize
HENRY PAUL ZETLIN

Certificates of Honor
KENNETH ELDRED HAMLIN, JR. ROBERT EDWARD THOMPSON
WALTER CHRISTIAN GAKENHEIMER

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COLONEL FRED T. BISHOPP, Commanding
LIEUTENANT COLONEL WARREN P. DAVIS, Executive Officer
LIEUTENANT COLONEL JOHN W. STEVENS, II, Adjutant
MAJOR DONN P. STRAUSBAUGH, Plans and Training Officer

FIRST BATTALION

MAJOR CHARLES W. WEIDINGER, Commanding
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COMPANY "A"	COMPANY "B"	COMPANY "C"
Captain Sydney S. Stabler	Captain Frederic M. Hewitt	Captain Cecil L. Harvey
2nd Lieut. Robert W. Adams	1st Lieut. Benjamin Alperstein	2nd Lieut. John H. Beers
2nd Lieut. John J. Gude	2nd Lieut. Herbert P. Hall	2nd Lieut. Richard E. Kern

SECOND BATTALION

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FIRST SERGEANT MERLE R. PREBLE, Acting Adjutant

COMPANY "D"	COMPANY "E"	COMPANY "F"
Captain Elliott B. Robertson	Captain Francis J. Zalesak	Captain Lewis N. Tarbett
2nd Lieut. Byron L. Carpenter	1st Lieut. Robert E. Krafft	2nd Lieut. John J. DeArmey
2nd Lieut. James W. Ireland	2nd Lieut. Frank H. Cronin	2nd Lieut. Ned H. Oakley

THIRD BATTALION

MAJOR HARVEY W. KREUZBURG, Commanding
FIRST SERGEANT WILLIAM H. McMANUS, Acting Adjutant

COMPANY "G"	COMPANY "H"	COMPANY "I"
Captain Elgin W. Scott	Captain Van S. Ashmun	Captain Thomas J. Capossela
1st Lieut. Robert J. O'Neill	1st Lieut. Fred W. Perkins	2nd Lieut. George E. Seeley
2nd Lieut. Elies Elvove	2nd Lieut. Harold H. Essex	2nd Lieut. Fred J. Hughes

FOURTH BATTALION

MAJOR JAMES M. LANIGAN, Commanding
FIRST SERGEANT GEORGE E. MEEKS, Acting Adjutant

COMPANY "K"	COMPANY "L"	COMPANY "M"
Captain William B. Davis	Captain William F. Howard	Captain Luther E. Mellen
1st Lieut. Floyd A. Soule	2nd Lieut. Sigmund Gerber	1st Lieut. Robert J. Gottlieb
2nd Lieut. John G. Freudenberger	2nd Lieut. Thomas L. Wilson	1st Lieut. Emmitt C. Witt

BAND

CAPTAIN WALTER L. MILLER
FIRST SERGEANT WILLIAM F. YOCUM

NON-COMMISSIONED OFFICERS

FIRST BATTALION		
COMPANY "A"	COMPANY "B"	COMPANY "C"
	First Sergeants	
Richard M. Lee	Charles W. Bastian, Jr.	Burton D. Borden
	Platoon Sergeants	
Nicholas J. Camardi	Carl R. Blumenstein	Robert S. Brown
Jack G. Grier	Morgan L. Tenny	Joseph A. Parks
	Guide Sergeants	
Harold F. Cotterman	Newton J. Cox	Huyette B. Oswald
	Clayton H. Dietrich	
SECOND BATTALION		
COMPANY "D"	COMPANY "E"	COMPANY "F"
	First Sergeants	
A. Terris Stoddart	Paul T. Lanham	L. Kemp Hennighausen, Jr.
	Platoon Sergeants	
Donald C. Davidson	Harry B. Hambleton, Jr.	Robert W. Laughead
Carroll M. Forsyth	George J. Heil, Jr.	Edward T. Naughten
	Guide Sergeants	
H. John Badenhoop	William E. Brown, Jr.	Harry G. Gallagher
George L. Flax	Vernon R. Foster	Robert J. Lodge
THIRD BATTALION		
COMPANY "G"	COMPANY "H"	COMPANY "I"
	First Sergeants	
Joseph M. Marzolf, Jr.	John K. Shipe	Willard C. Jensen
	Platoon Sergeants	
Enos Ray	William G. Esmond	Frank J. Skotnicki
William H. Souder, Jr.	Oscar W. Nevares	William H. Watkins
	Guide Sergeants	
Richard K. Barnes, Jr.	Ralph J. Albarano	Edwin F. Harlan
Francis X. Beamer	Nicholas A. Budkoff	James A. McGregor
	Arthur M. Rudy	
FOURTH BATTALION		
COMPANY "K"	COMPANY "L"	COMPANY "M"
	First Sergeants	
Alan R. Miller	Carl H. Stewart, Jr.	Charles C. Holbrook
	Platoon Sergeants	
Henry F. Kimball, Jr.	Thomas Coleman	George E. Lawrence
Leonard J. Otten, Jr.	Gardner H. Storrs	Warren E. Steiner
	Guide Sergeants	
W. Bruce Davis	Harold Dillon	Mason Chronister
Elmer Freemire	Stephen M. Meginnis, II	Rufus E. O'Farrell, Jr.
Ralph J. Tyser		

Register of Students, 1938-1939 COLLEGE OF AGRICULTURE

Senior Class	
Astle, Charles C., Rising Sun	Lowe, L. Robert, Pylesville
Baden, John A., Landover	Lynt, Richard K., Jr., Washington, D. C.
Baker, Alva S., Catonsville	Marche, William, Hyattsville
Bowers, Lloyd C., Oakland	Martin, Clifton O., Jr., Rockville
Brinckerhoff, Mary L., Landsdowne, Pa.	Matthews, Harry B., Jr., Salisbury
Brown, Allan H., University Park	McFarland, Frank R., Jr., Cumberland
Brownell, James F., Washington, D. C.	Miller, Lee A., Hyattsville
Burnet, James H., Charlottesville, Va.	Miller, Thomas E., Washington, D. C.
Cohen, Charlotte F., E. Orange, N. J.	Muma, Martin H., Cumberland
Crane, Julian C., College Heights	Nicholls, Robert D., Boyds
Eck, Clarence A., Overlea	Peaslee, Joseph K., Washington, D. C.
Faith, Lawrence S., Hancock	Phelps, R. Nelson, McDonogh
Fitzwater, Earl W. Swanton	Phillips, Clarence W., Princess Anne
Galbreath, Paul M., Street	Potter, Lloyd A., Bethesda
Gupton, Ewing L., Jr., Berwyn	Remsberg, George C., Jr., Middletown
Harris, George J., Lonaconing	Secrest, John P., Brentwood
Hepburn, Edward W., Worton	Shoemaker, Robert A., Woodbine
Heubeck, Elmer, Jr., Baltimore	Steinberger, Janet I., Baltimore
Hite, Norborne A., Port Deposit	Sutton, Richard S., Kennedyville
Jarrell, William E., Ridgely	Talcott, Ellen E., Washington, D. C.
Johnson, Edwin R., Germantown	Wheatley, Marion L., Vienna
Jones, Kenneth F., Newport, Del.	Willingham, Patricia M., Hyattsville
Kilby, Wilson W., Conowingo	Winkler, Fred B., Chevy Chase
Ladson, Marcia, Rockville	Witt, Detlef J., Anacostia, D. C.
Lapidus, Stanley I., Baltimore	
Junior Class	
Ahalt, Louis F., Middletown	MacLeod, Mary F., Washington, D. C.
Aist, Wilmer F., Jessup	McGregor, James A. Worton
Beneze, George C., Annapolis	Meade, DeVoe K., Hyattsville
Brosius, J. William, Adamstown	Menke, Margaret C., Washington, D. C.
Butler, Walter M., Jr., Dickerson	Merritt, Joseph S., Jr., Dundalk
Cole, Albert H., Linthicum Heights	Morris, Joseph B., Port Deposit
Crist, Howard G., Jr., Glenelg	Nevares, Oscar W., Baltimore
Danforth, Elaine, Baltimore	Oakley, Ned H., Washington, D. C.
Davis, Virginia E., Washington, D. C.	Pailthorp, Robert W., Takoma Park
Farrington, Edith, Chevy Chase	Pohlhaus, Joseph N., Baltimore
Faulkner, Edgar F., Lansdowne	Redding, William V., Street
Foster, Vernon R., Parkton	Rudy, Arthur M., Middletown
Gatch, Benton R., Baltimore	Schmier, Charles N., Woodlawn
Gude, John J., Hyattsville	Sheibley, David F., Newport, Pa.
Harrison, Venton R., Washington, D. C.	Stevens, Robert L., Street
Hess, Kenneth S., Washington, D. C.	Stouffer, Frances J., Berwyn
Hodson, Virginia E., Baltimore	Swann, A. Hope, Leonardtown
Howard, Park P., Jackson Heights, N. Y.	Talbott, Dorothy E., Clarksville
Huffer, Sarah V., Boonsboro	Tarbett, Lewis N., Takoma Park
Kefauver, Fred S., Middletown	Taylor, Frank W., Ridgely
Keller, J. Hugh, Middletown	Ward, Stevenson A., Baltimore
Kemp, Margaret C., College Park	Whitall, Sarah O. M., Crownsville
Kluge, Gordon L., Washington, D. C.	Winter, Joseph S., Woodmoor
Lee, Whiting B., Hyattsville	Wood, Edward P., Forest Glen
Leise, Joshua M., Washington, D. C.	

Sophomore Class

Anderson, Harry W., Washington, D. C.
 Bailey, Howard M., Parkton
 Barber, Charles A., Washington, D. C.
 Beattie, James M., Beltsville
 Bierer, Donald S., Brooklyn, N. Y.
 Bosley, Glenn M., Sparks
 Bothe, Henry C., Baltimore
 Brown, Virginia L., Washington, D. C.
 Burton, Ralph V., Baltimore
 Calver, Georgianna E., North Beach
 Carl, Edmund O., Washington, D. C.
 Chance, Charles M., Grasonville
 Christensen, Hilde M., Hyattsville
 Clark, George E., Havre de Grace
 Cotterman, Harold F., Jr., College Park
 Crist, Lee S., Glenelg
 Cruikshank, Thomas C., Galena
 Daugherty, Edward B., Jr., Delmar, Del.
 DiGiulian, Charles A., Hillside
 Donn, Maryan S., Hollywood
 Dougherty, Edward J., Baltimore
 Doying, Will B., Washington, D. C.
 Eyler, Laura H., Baltimore
 Forbes, Ian, Jr., Washington, D. C.
 Forsyth, Carroll M., Friendsville
 Fullington, Page D., Washington, D. C.
 Garrett, John D., Baltimore
 Gordon, Jack L., Riverdale
 Hansel, William, Vale Summit
 Harbaugh, Mildred B., Bagley
 Harcum, Edward W., Mardela
 Harwood, Elliott B., Baltimore
 Hawley, Walter O., Takoma Park
 Hoffman, Frank H., Edmonston
 Hoshall, George W., Parkton
 Husted, James V., Silver Spring
 Jacques, Samuel A., Smithsburg
 Jehle, John R., Hyattsville
 Johnson, David O., Takoma Park
 Jones, H. Bradley, Sharon
 Kelly, David C., Jr., Fort Meade
 Kenney, Francis V., Chevy Chase

Krause, Eugene F., Gambrills
 Krause, Robert M., Gambrills
 Leister, Richard A., Washington, D. C.
 Libeau, Clayton P., College Park
 Linsley, Herbert C., Bridgeport, Conn.
 Marshall, Donald P., Berlin
 Martin, Calvin S., Rockville
 Meyer, Robert C., Baltimore
 Miller, Alan R., Washington, D. C.
 Miller, Norman A., Jr., Hyattsville
 Mullady, John T., Washington, D. C.
 Nordeen, Carl E., Jr., Mt. Rainier
 Rappleye, Robert D., Washington, D. C.
 Reed, Walter F., Shelter Island Hgts., N. Y.
 Reiblich, Karl F., Woodlawn
 Reid, J. Thomas, Siebert
 Reid, Richard S., Kensington
 Rice, Floyd E., Takoma Park
 Ryan, Hilda H., Washington, D. C.
 Ryan, John J., Ednor
 Sanner, Staley V., Frederick
 Saperstein, Paul, Baltimore
 Scarborough, Rowan L., Silver Spring
 Scherer, Charles R., Towson
 Scoville, Raymond M., Silver Spring
 Sesso, Raymond F., Washington, D. C.
 Shelton, Emma, Chevy Chase
 Skinner, James H., Barclay
 Smith, Wilson L., Stevenson
 Taliaferro, T. Boyd, Jr., Baltimore
 Thurston, Margaret J., Riverdale
 Treacle, H. Charles, Street
 Vogt, George B., Catonsville
 Wallace, John A., Bethesda
 Wannan, Charles W., Jr., Washington, D. C.
 Weber, Jack E., Oakland
 Whiteford, William G., Baltimore
 Widener, Frederick D., Baltimore
 Wood, E. Wade, Washington, D. C.
 Wyvell, Janet E., Washington, D. C.

Freshman Class

Adkins, Lee W., Snow Hill
 Aiken, Sigmund C., Cockeysville
 Allnutt, David C., Gaithersburg
 Astle, Norris C., Rising Sun
 Bartley, Charles H., Washington, D. C.
 Bearden, Joseph N., Capitol Heights
 Bernstein, Alfred, Washington, D. C.
 Bowman, David J., Washington, D. C.
 Boyce, William W., Jr., Lutherville
 Boyer, William W., Perryman
 Brauner, Donald J., Hyattsville
 Breining, Lloyd F., Easton

Brill, Harold W., Mt. Rainier
 Buddington, Philip N., College Park
 Burlin, Amos M., Port Deposit
 Cabrera, Rafael L., Washington, D. C.
 Clark, David W., Corning, N. Y.
 Clendaniel, Charles E., Jr., Stewartstown, Pa.
 Cooley, Jacquelin S., Berwyn
 Cooley, John D., Jr., Havre de Grace
 Day, William W., Street
 deAlba, Jorge, Washington, D. C.
 Degen, Rudolph G., Chevy Chase

Dillon, John A., Riverdale
 Downes, James E., Denton
 Downes, Marshall H., Centreville
 Duguid, George C., Riverdale
 Dunster, Harold P., Jr., Baltimore
 Durst, Harry P., Silver Spring
 Eckel, Allen W., Cambridge
 Edwards, Robert H., Baltimore
 Eisenberger, James D., Cumberland
 Flemer, Carl F., Oak Grove, Va.
 Frame, Melvin L., Washington, D. C.
 Galbreath, Thomas C., Rocks
 Garrett, Ashton, Rockville
 Goodman, Guy H., Jr., Takoma Park
 Green, Victor E., Washington, D. C.
 Groome, William B., Mechanicsville
 Gude, Joseph L., Hyattsville
 Hogue, Philip R., Brandywine
 Hudson, Marion C., Delmar
 Hyde, Robert F., Baltimore
 Jarrell, J. Boone, Jr., Ridgely
 Jenkins, Richard L., Suitland
 Jones, Joseph W., Sharon
 Jubb, Charles R., Millersville
 Keeler, John R., Washington, D. C.
 Keller, Elmer C., Middletown
 Kemp, William B., Baltimore
 King, Roland E., Reisterstown
 Klahold, Harold P., Baltimore
 Kolb, Robert W., Baltimore
 Leighton, Irene, Spring Lake, N. J.
 Levy, Stanley, Baltimore
 Lewis, Ralph H., Hyattsville
 Lichti, John, Beach Haven
 Liden, Conrad H., Federalsburg
 Linn, Arthur J., Hyattsville
 Lowe, William B., Pylesville
 Mann, Glenn M., Washington, D. C.
 Mayne, Mehrl F., Rockville
 McCann, David R., Silver Spring
 McCrea, Whitney B., Rock Hall
 McDonald, Leib, Maryland Line
 McGregor, William A., Worton
 McKay, Robert H., Rocky Ridge
 Michaels, Sheldon, Washington, D. C.
 Miles, William W., Gaithersburg
 Miller, Vernon H., Laurel

Alt, Theodore W., Washington, D. C.
 Blackwell, Robert L., Hyattsville
 Brandt, Karl W., College Park
 Everett, Earl L., Scottsbluff, Nebr.
 Gibbs, William E., Hyattsville
 Katsura, Saburo, Washington, D. C.

Myers, Merl D., Baltimore
 Nicholson, Clark O., Dickerson
 Northam, David E., Snow Hill
 Osborn, James G., Aberdeen
 Polan, Alvin F., Baltimore
 Pole, William R., Washington, D. C.
 Porter, Carlton H., Greensboro
 Porter, Robert C., Washington, D. C.
 Prowell, William R., Dundalk
 Rehberger, Edward A., Baltimore
 Reid, F. Sam, Siebert
 Rose, Donald B., Baltimore
 Sachs, Carl A., Washington, D. C.
 Schaffer, J. David, Laurel
 Schilling, John M., Baltimore
 Seitz, F. Leroy, Bowie
 Siegrist, Jacob C., Baltimore
 Sigrist, Paul E., Westover
 Simonds, Warren O., Hyattsville
 Skemp, Glenn S., Washington, D. C.
 Slack, Samuel T., Sykesville
 Smelser, Charles H., Uniontown
 Smith, Donald F., Chevy Chase
 Smith, Ernest E., Brooklyn
 Smith, Verlin W., College Park
 Smith, Willis A., Forest Hill
 Smoot, John Jones, McLean, Va.
 Solomon, Marvin B., Baltimore
 Spawn, William, Washington, D. C.
 Stalcup, Robert E., Berwyn
 Sussman, Paul, Baltimore
 Todd, A. Morris, Jr., Sparrows Point
 Turner, Alan C., Jr., Lusby
 Waite, Alan K., College Park
 Walton, Hugh M., Washington, D. C.
 Waters, Perrie W., Rockville
 Watkins, Charles B., Cooksville
 Wehrle, John S., Washington, D. C.
 Welling, Mordecai G., Sykesville
 Whipp, Roscoe N., Frederick
 Whiteford, W. Scott, Whiteford
 Whitman, Julian R., Wellesley Hills, Mass.
 Whittaker, Burton E., Laurel
 Williamson, John E., Hyattsville
 Wright, Herbert H., Washington, D. C.
 Young, Kendall S., Upperco
 Zentz, Monroe H., University Park

Part Time

Kieser, O. Burl, Washington, D. C.
 Leigh, Lillie M. (Mrs.), Baltimore
 Price, J. Wilmer, Jr., Catonsville
 Smithers, Gertrude F., (Mrs.), Reisterstown
 Smithers, Robert B., Reisterstown
 Wilcox, Marguerite S., Washington, D. C.

Unclassified

Bollinger, Nevin C., Hyattsville
 Bruns, Lawrence A., Relay
 Campbell, George A., Jr., Troy, Mo.
 Cohen, Robert S., New Windsor
 Croce, Arturo, Venezuela, South America
 Davis, George H., Berlin

Harman, William E., Accident
 Lewis, Glenn, Lantz
 Oltman, John W., Berlin
 Riggs, Francis H., Brookeville
 Steiner, Herbert H., Mt. Rainier

COLLEGE OF ARTS AND SCIENCES

Senior Class

Aarons, Ralph, Baltimore
 Ansporn, Harry D., Washington, D. C.
 Anthony, E. Rumsey, Chestertown
 Aring, Bernice C., Baltimore
 Aud, William E., Poolesville
 Balmer, Charles B., Lyndhurst, N. J.
 Barber, Elizabeth C., Gaithersburg
 Bates, Virginia B. (Mrs.), Washington, D. C.
 Beers, John H., Washington, D. C.
 Bishopp, Fred T., Silver Spring
 Blalock, Georgia, Jonesboro, Ga.
 Bollinger, Phyllis, College Park
 Borlik, Ralph, Washington, D. C.
 Bowen, C. Vernon, Centreville
 Bowling, Thelma P., Faulkner
 Bowyer, Ernestine C., Washington, D. C.
 Campbell, Gordon H., Washington, D. C.
 Cannon, Robert P., Salisbury
 Carleton, Harold B., Washington, D. C.
 Carson, Mary Katherine, Chevy Chase
 Cary, Charles G., Riverdale
 Checket, Irene R., Baltimore
 Clark, John T., Greensboro
 Clugston, Carolyn D., University Park
 Cohen, Harry, Baltimore
 Collins, Roberta, Riverdale
 Comer, Florence R., Hyattsville
 Cronin, Mary E., Aberdeen
 Dantzig, Henry P., Hyattsville
 Dippel, Francis X., Baltimore
 Domenici, Maurice R., Hagerstown
 Dwiggin, Roscoe, College Park
 Edmonds, Ralph M., Takoma Park
 Evans, Lydia M., Washington, D. C.
 Faul, R. Virginia, Washington, D. C.
 Fulks, Moir M., Rockville
 Goldberg, Alvin, Brooklyn, N. Y.
 Goldman, Leon, Washington, D. C.
 Grave de Peralta, Jose I., Camaguey, Cuba
 Greenfield, Arthur, Yonkers, N. Y.
 Groff, William D., Jr., Owings Mills
 Hall, N. Irene, College Park
 Handler, Sylvia, Kingston, N. Y.
 Hart, Margaret F., Baltimore
 Henry, Frances L., Washington, D. C.

Hirsch, Albert, Frederick
 Holt, Mary E., Washington, D. C.
 Honigman, Alvin H., Baltimore
 Hoover, Lawrence G., Takoma Park
 Hunter, Frances E., Chevy Chase
 Jacobs, John S., Washington, D. C.
 Jaffe, Joseph, Washington, D. C.
 Johnson, Vivian H., Baltimore
 Johnson, William R., Baltimore
 Joseph, David R., Stamford, Conn.
 Keefer, Ruth L., Takoma Park
 King, James F., Baltimore
 Kraemer, Edwin, Hackensack, N. J.
 Krynitsky, John A., Chevy Chase
 Leard, Mary D., Norfolk, Va.
 Lee, Richard E., Landover
 Levin, Harriett A., Baltimore
 Levine, Ethel, Brooklyn, N. Y.
 Lindsay, Gorton P., Baltimore
 MacDonald, Charles R., Cumberland
 Maslin, Margaret L., Port Chester, N. Y.
 Maxwell, Francis T., Towson
 McClayton, M. Elaine, Baltimore
 McFarlane, Samuel B., Lonaconing
 McGinniss, Harry W., Kensington
 Mears, Thomas W., Washington, D. C.
 Mehl, Joseph M., Jr., Washington, D. C.
 Mellen, Luther E., Jr., Baltimore
 Meng, Ralph H., Perry Point
 Mermelstein, Daniel M., Baltimore
 Miller, Walter L., Washington, D. C.
 Oppenheimer, Beverly C., Brooklyn, N. Y.
 Person, Gladys Marion, Chevy Chase
 Pitzer, James E., Cumberland
 Pollard, Kitty L., Baltimore
 Prettyman, Dan T., Trappe
 Raisin, Herman S., Brooklyn, N. Y.
 Reeves, Samuel W., Aberdeen
 Rochkind, Joseph M., Baltimore
 Rosen, Martin, Fort Salonga, N. Y.
 Rosenstein, Louis N., Baltimore
 Sachs, Harold, Washington, D. C.
 Samson, Elizabeth, Takoma Park
 Schneider, Howard, Yonkers, N. Y.
 Schutz, Patricia B., Annapolis
 Scott, Mary Jane, Hyattsville

Shmuner, Daniel P., Baltimore
 Silberg, I. Walter, Baltimore
 Simon, F. Lester, Jr., Baltimore
 Snyder, Eleanor S., Baltimore
 Spalding, Joseph P., Silver Spring
 Stedman, Samuel F., Baltimore
 Stevenson, Frank V., Takoma Park
 Stoddard, Sara L., Hyattsville
 Towson, William O., Baltimore
 Trundle, Lula S., Ashton
 Turner, Katherine L., Washington, D. C.

Wahl, H. Muriel James (Mrs.), Silver Spring
 Warfield, Gustavus, College Park
 Weinblatt, Mayer, Baltimore
 Wharton, Edward M., College Park
 White, William M., Washington, D. C.
 Williams, Arthur E., Jr., Salisbury
 Wilson, Thomas L., Havre de Grace
 Wolf, Frances W., Washington, D. C.
 Young, Jerome L., Washington, D. C.
 Zalesak, Francis J., College Park

Junior Class

Abrams, A. David, Beckley, W. Va.
 Aiello, Catherine C., Hyattsville
 Auerbach, Lawrence W., Middletown, N. Y.
 Axtell, Harold A., Jr., Takoma Park
 Baldwin, Agnes C., Berwyn
 Ballard, Emilie M., Hyattsville
 Barre, L. Bernice, Washington, D. C.
 Benavent, Belen N., San German, P. R.
 Benson, Susan E., Relay
 Blumenstein, Carl R., Washington, D. C.
 Blundon, Kenneth E., Forest Glen
 Bond, Marian W., Washington, D. C.
 Bond, William R., Relay
 Booth, Muriel M., Baltimore
 Bowers, Leslie L., Washington, D. C.
 Britton, Rose E., Washington, D. C.
 Buch, Eloise A., Baltimore
 Burk, Joseph, Woodlawn
 Carrico, Thomas C., Bryantown
 Clark, Caroline, Washington, D. C.
 Davis, Gayle M., St. John, N. B., Canada
 Dennis, Dorothy C., Woodbury, N. J.
 Dieudonne, Erasmus L., Jr., Bladensburg
 Dillon, Harold, Baltimore
 Edyvean, John H., Baltimore
 Elliott, Virginia P., Baltimore
 Epperson, John W., Baltimore
 Esmond, William G., Washington, D. C.
 Ettin, Pearl, W. Englewood, N. J.
 Falkowitz, Milton, Bronx, N. Y.
 Fawcett, Howard H., Cumberland
 Ferrell, Sara F., Matoaka, W. Va.
 Fisch, Lee A., S. Orange, N. J.
 Freedman, Leona S., Baltimore
 Furbershaw, Olga S., Washington, D. C.
 Gardiner, Louise S., Washington, D. C.
 Gardner, William L., Jessup
 Gile, John H., Washington, D. C.
 Goller, Carl, Baltimore
 Goodrich, Edward E., Hyattsville
 Greenwood, Judith K., Washington, D. C.
 Griffith, Mary L., College Park
 Gubnitsky, Albert, Baltimore
 Hagan, William B., Allen

Hall, Marjorie E., Washington, D. C.
 Harrington, Mary J., Washington, D. C.
 Harris, Pauline C., Elkton
 Harrover, Elizabeth, Washington, D. C.
 Head, Julia E., Hyattsville
 Henderson, Adrienne M., Chevy Chase
 Hornstein, Audrey A., Baltimore
 Hunter, Mary E., Chevy Chase
 Hurley, Walter V., Hyattsville
 Hutson, Paul G., Hagerstown
 Irvine, Ann H., Chicago, Ill.
 Jackson, Lorraine V., College Park
 Jett, Geraldine V., Chevy Chase
 Johnston, M. Elizabeth, Washington, D. C.
 Jones, Rose I., College Park
 Kaufman, Daniel, Washington, D. C.
 King, Vernon J., Lansdowne
 Koenig, Ruth E., Baltimore
 Kovitz, Armand, Baltimore
 Kraus, John W., Baltimore
 Langford, Bertha M., Washington, D. C.
 Lee, Richard M., Bethesda
 Lehman, Milton L., Baltimore
 List, Leroy H., Baltimore
 Logan, M. Matilda, Millington
 Long, James W., Silver Spring
 McClay, Harriette N., Hyattsville
 McIndoe, Rebecca M., Lonaconing
 McManus, William H., Berwyn
 Mintz, Milton, Plainfield, N. J.
 Neilson, Robert S., Jr., Baltimore
 Offutt, Harry D., Edgewood Arsenal
 Oswald, William B., Catonsville
 Owens, Anna B. (Mrs.), McDonogh
 Owings, Noble L., Riverdale
 Palmer, Carroll F., Washington, D. C.
 Parks, Joseph A., Washington, D. C.
 Paterson, Bess L., Towson
 Payne, Frances E., Landover
 Pearson, H. Ralph, St. Georges Island
 Pinas, Samuel R., Baltimore
 Prescott, Stedman, Jr., Rockville
 Price, Frances, Chattoay, W. Va.
 Pyle, Mary E., Frederick

Rangle, Raymond V., Baltimore
 Ray, Enos, Fair Haven
 Remsburg, Charles G., Berwyn
 Rice, Bernard, Baltimore
 Ringwald, Owen E., Hyattsville
 Rochlin, Martin, Baltimore
 Rogers, Jerome S., Jr., Bethesda
 Rosen, Bernard L., Baltimore
 Rubin, Ruth, Washington, D. C.
 Sachs, M. Bertram, Baltimore
 St. Clair, Betty D., College Park
 Scheffler, Rita A., Bethesda
 Schlesinger, Arthur, Washington, D. C.
 Seidel, David L., Takoma Park
 Seligson, David, Washington, D. C.
 Siegel, Leo H., Nutley, N. J.

Simpson, Edgar A., Baltimore
 Simpson, Mary E., Trappe
 Souder, William H., Jr., Washington, D. C.
 Steinbach, Morton, Baltimore
 Sterling, Harold, Washington, D. C.
 Stern, Harry William, Washington, D. C.
 Thompson, Franklin L., Washington, D. C.
 Usuda, Charles T., Bethesda
 Vaiden, Sara A., Baltimore
 Waltermann, Edward, Greenfield Park, N. Y.
 Waters, Robert W., Princess Anne
 Welsh, Helen O., Hyattsville
 West, William V., Chevy Chase
 White, J. Gordon, Baltimore
 Wilson, N. Lorraine, Fulton
 Worgan, David K., Luke

Sophomore Class

Abell, J. Dent, Leonardtown
 Abelman, Rita, Atlanta, Ga.
 Aburn, Herbert O., Jr., Baltimore
 Acree, George W., Washington, D. C.
 Allen, Charles B., Towson
 Anchell, Melvin, Baltimore
 Angleberger, Grace E., Frederick
 Arnold, Bessie L., Takoma Park
 Ashman, Robert E., Baltimore
 Baldwin, Janet K., Berwyn
 Beard, Helen M., Catonsville
 Bennett, John M., Baltimore
 Bjorge, Margaret, New London, Conn.
 Black, William P., Charleston, W. Va.
 Blum, Alice M., Baltimore
 BonDurant, Edgar H., Jr., Mt. Rainier
 Bonnett, Howard G., Washington, D. C.
 Borenstein, Frank C., Baltimore
 Bowers, Cecil D., Woodlawn
 Bowling, James E., Newport
 Bradley, Eleanor J., Chevy Chase
 Bragaw, Josephine M., Augusta, Ga.
 Brandt, Frederick B., Washington, D. C.
 Brandt, John M., Jr., Baltimore
 Brandt, Norman C., Chevy Chase
 Brendle, William K., Baltimore
 Brice, Mary E., Millburn, N. J.
 Bridge, Herbert S., Takoma Park
 Briggs, Gilbert P., Washington, D. C.
 Brill, Warren D., North Beach
 Brinckerhoff, John G., Lansdowne, Pa.
 Brooks, Eva B., Baltimore
 Brown, John W., Bethesda
 Burke, Francis V., Silver Spring
 Burrage, Margaret D., Silver Spring
 Butler, Harry F., Cumberland
 Byers, Shirley, Baltimore
 Campbell, Dorothy M., Riverdale
 Cann, Alice V., Baltimore

Carson, Betsy J., Chevy Chase
 Case, Richard W., Berwyn
 Chaney, Jack W., Annapolis
 Chapline, George M., Jr., Frederick
 Christensen, Edith A., Hyattsville
 Cissel, Elizabeth M., Washington, D. C.
 Clancy, Georgia K., Washington, D. C.
 Clark, Clara M., Takoma Park
 Clark, Kenneth J., Baltimore
 Clark, Richard A., Alexandria, Va.
 Cleaver, William F., Washington, D. C.
 Coe, Paul M., Washington, D. C.
 Cole, William P., III, Towson
 Coleman, Albert S., Washington, D. C.
 Cook, Elmer E., Brooklyn
 Councill, Wilford A. H., Jr., Baltimore
 Cragin, Lexey J., Greenbelt
 Criner, Ploomie E., Washington, D. C.
 Crone, John L., Mt. Rainier
 Culver, Ralph J., Washington, D. C.
 Curtis, Elizabeth J., Ellicott City
 Dammeyer, Robert E., Annapolis
 Dann, Clayton S., Chevy Chase
 Davis, Frank I., Poolesville
 Davis, Ralph F., Baltimore
 Delaney, Atlee M., Charleston, W. Va.
 Denney, Zelma T. (Mrs.), College Park
 DeWitt, George A., Jr., Bethesda
 Dicus, Frances A., Arlington, Va.
 Dix, Gloria R., New York, N. Y.
 Dodson, Charles M., Mount Airy
 Dorr, Charles R., Washington, D. C.
 Drawbaugh, David G., Jr., Hagerstown
 Durm, William B., Baltimore
 Ehrlich, Raphael H., Washington, D. C.
 Ehudin, Herman, Baltimore
 Elvin, Kay D., Frostburg
 Eschner, John F. P., Billingsley
 Etzler, Doris M., Frederick
 Evans, Ruth E., Baltimore
 Evering, George C., Baltimore
 Ewing, Lydia F., Takoma Park
 Farkas, Robert W., York, Pa.
 Feldman, Milton J., South Fallsburg, N. Y.
 Fetty, John H., Takoma Park
 Fisher, Allan C., Cumberland
 Flanagan, Elizabeth L., Fort G. G. Meade
 Foote, Ellen C., Chevy Chase
 Foster, E. Gladys, Parkton
 Fox, Harvey E., Seat Pleasant
 Frothingham, James R., Jr., Hyattsville
 Frye, Donald H., Laurel
 Garrett, Esther B., Annapolis
 Gehman, Jonathan F., Brentwood
 Genovesi, Joseph, Baltimore
 Goldbeck, Clara G., Chevy Chase
 Goldstein, Armand M., Baltimore
 Guerrant, William S., Jr., Washington, D. C.
 Guyther, Joseph R., Mechanicsville
 Haase, Thomas N., Baltimore
 Hall, Bruce M., College Park
 Hamill, James E., Bethesda
 Hampshire, Evelyn L., Towson
 Hayman, John B., Pocomoke City
 Hellstern, Charlotte M., Hudson Heights, N. J.
 Henderson, Mary D., Rockville
 Hitch, Robert N., Queenstown
 Hodges, Julia L., Catonsville
 Hogan, James E., Jr., Baltimore
 Hohouser, Henry S., Washington, D. C.
 Hollingsworth, Treva F., Washington, D. C.
 Horowitz, Daniel J., Baltimore
 Hudson, Vann D., Baltimore
 Hurwitz, Hyman, Annapolis
 Hutson, Harry M., Cumberland
 Ingraham, Wilson G., Washington, D. C.
 Jachowski, Leo A., Jr., Washington, D. C.
 Jaworski, Melvin J., Baltimore
 Jefferys, Wilbur T., Takoma Park
 Johnson, Robert W., Jr., Baltimore
 Johnson, William P., Glen Burnie
 Jones, Bobby L., Relay
 Jones, Charles M., Cumberland
 Jones, Nancy L., Baltimore
 Joyce, Charles V., Jr., Hyattsville
 Kaplan, Harry E., Washington, D. C.
 Kassan, Robert S., Baltimore
 Kassel, Victor, Brooklyn, N. Y.
 Keeney, Dan F., Walkersville
 Kemp, Lois V., Baltimore
 Kempton, Hildreth, Lanham
 Kendall, Charles W., Dundalk
 Kiernan, Harry D., Jr., East Haven, Conn.
 King, Laura F., Savage
 King, Thomas O., Savage

Kirkman, Harriet V., Catonsville
 Kittel, Patricia I., Chevy Chase
 Klein, Charles F., Baltimore
 Kress, Bernice E., Baltimore
 Krugman, Leonard, Newark, N. J.
 Ksanda, Charles F., Washington, D. C.
 Kuhn, Helene L., Baltimore
 Landy, William C., Clifton, N. J.
 Lange, Phyllis S., Washington, D. C.
 Lank, Murrell C., Washington, D. C.
 Lanza, Francisco M. Aguirre, P. R.
 Lee, Mary M., Bethesda
 Leon, Albert K., Jr., Washington, D. C.
 Leonard, J. David, Chevy Chase
 Levine, Lawrence B., S. Fallsburg, N. Y.
 Levine, Stuart C., Baltimore
 Lewis, Thomas H., Maplewood, N. J.
 Lipsky, Irving R., Washington, D. C.
 Long, Ruth E., Salisbury
 Longfield, A. North, Washington, D. C.
 Lowenthal, Jean E., New York, N. Y.
 Lubert, Laura E., Washington, D. C.
 Lucas, Frances N., Berwyn
 Madorsky, Irving, Washington, D. C.
 Makover, Jeanne A., Baltimore
 Mandell, Marvin, Baltimore
 Mangum, Lola M., Silver Spring
 Marlow, Alice M., Bethesda
 Martin, James A., Emmitsburg
 Matheke, Joan B., Newark, N. J.
 Mazur, Alexander, Shelton, Conn.
 McCauley, Harry R., Jr., Baltimore
 McClure, Charles J. R., Baltimore
 McInturff, George F., Washington, D. C.
 McMahon, William E., II, Washington, D. C.
 Meakin, J. Leonard, Washington, D. C.
 Meanley, M. Brooke, Baltimore
 Meginniss, Stephen M., II, Baltimore
 Meriam, Martha P., Kensington
 Michaelson, Helen G., Brooklyn, N. Y.
 Miller, Robert A., Branchville
 Miller, Sonia V., Annapolis
 Milloff, Bernard, Silver Spring
 Moore, George C., Queen Anne
 Morris, Charles B., Delmar, Del.
 Mudd, Patrick C., Bryantown
 Mueller, J. Leo, Baltimore
 Murphy, Julian G., Forest Glen
 Nichols, H. Elizabeth, Baltimore
 Nichols, Irene M., Washington, D. C.
 Nielsen, Anna M., Stamford, Conn.
 Norcross, Theodore W., Jr., Chevy Chase
 Nowell, Ellsworth B., Linthicum Heights
 Osso, Philomena, Annapolis
 Palese, John M., Baltimore
 Parker, Frances J., Catonsville
 Parvis, Charles P., Baltimore

Pennella, Michael, Washington, D. C.
 Peters, Emily R., Beltsville
 Pfeil, Edgar T., Baltimore
 Pohlman, Thelma V., Landover
 Porter, Bettie V., Silver Spring
 Powell, Alwyn M., Baltimore
 Preble, Merle R., College Park
 Prinz, John W., Jr., Baltimore
 Pusey, Carl L., Jr., Salisbury
 Raphael, E. Victor, Cumberland
 Raymond, Betty H., Washington, D. C.
 Repp, Martha V., Westernport
 Reynolds, Hope, Rising Sun
 Rice, Alvin B., Greenwich, Conn.
 Richmond, Naomi M., Cottage City
 Ricketts, Matilda J., Catonsville
 Riedel, Kathryn E., Hyattsville
 Rieg, Mary, Washington, D. C.
 Ritzenberg, Albert, Friendship, D. C.
 Robertson, Alice C., Washington, D. C.
 Rogers, John D., Richmond, Va.
 Roop, Dorothy M., Baltimore
 Rosenfield, Ethel M., Baltimore
 Royster, Patricia A., Bethesda
 Rundell, Barbara, Baltimore
 Ruppertsberger, Marjorie E., Baltimore
 Sack, Margaret E., Baltimore
 Sagle, Quay J., Jr., Hagerstown
 Scheetman, Stuart B., Newark, N. J.
 Schindel, Katherine M., Catonsville
 Schmidt, June C., Randallstown
 Schoolfield, Nancy C., Pocomoke
 Schuler, Walter H., Washington, D. C.
 Scott, Donald C., Washington, D. C.
 Silver, Betty J., Hyattsville
 Sindler, Millard S., Baltimore
 Singer, Milton E., Baltimore
 Sleight, Mildred A., Glen Burnie
 Smith, Francis A., North East

Freshman Class

Acker, Ellsworth G., Baltimore
 Aiello, Dorothy A., Hyattsville
 Aldrich, James C., Baltimore
 Aman, Elizabeth M., Aberdeen Proving
 Ground
 Amis, Alice M., College Park
 Amsterdam, Ben, Newark, N. J.
 Ander, Marvin H., Baltimore
 Anderson, Helen L., Sudlersville
 Ardinger, Joseph S., Baltimore
 Ardis, Barbara M., Snow Hill
 Arias, Rogelio E., Panama City, R. P.
 Armstrong, Robert H., Jr., Washington,
 D. C.
 Augustine, Frances M., Seat Pleasant
 Ayres, Robert R., Jr., Baltimore

Snyder, Peter F., Jr., Washington, D. C.
 Soule, Floyd A., Washington, D. C.
 Spelsberg, Walter K., Clarksburg, W. Va.
 Stapf, Shirley A., Baltimore
 Sterling, James T., Washington, D. C.
 Sterling, Raymond A., Washington, D. C.
 Stillings, Charles A., Baltimore
 Talcott, Worthington H., Washington, D. C.
 Talmadge, Richard H., Nutley, N. J.
 Tenny, Morgan L., Garrett Park
 Terl, Armand, Baltimore
 Thompson, Talmadge S., Silver Spring
 Tiller, Richard E., Washington, D. C.
 Tool, Arthur Q., Jr., Takoma Park
 Toomey, Edna P., Bladensburg
 Tucker, Rebecca A., Forest Hill
 Tulin, Molly B., Hartford, Conn.
 Turner, Roy B., Jr., Washington, D. C.
 Tuttle, Samuel D., Baltimore
 Ubides, Pedro F., Ponce, P. R.
 Vane, Rita, Charleston, S. C.
 Voris, Anna M., Laurel
 Wade, John P., Jr., Washington, D. C.
 Waesche, Harry L., Chevy Chase
 Wallace, F. Margaret, Bethesda
 Waters, Mary E., Odenton
 Watson, William W., Catonsville
 Weathersbee, David R., Washington, D. C.
 White, Kenneth S., Hyattsville
 Whitten, John M., Annapolis
 Wilds, Howard F., Jr., Baltimore
 Wilson, Irene L., Mt. Rainier
 Wiseman, Leon R., Washington, D. C.
 Woodring, Judy W., Chevy Chase
 Woodward, Charles W., Jr., Rockville
 Yaffe, Stanley N., Baltimore
 Yagendorf, June L., Elizabeth, N. J.
 Zaino, Rocco M., Westbury, N. Y.
 Ziegler, Paul R., Baltimore

Bacas, Harry A., Washington, D. C.
 Bacharach, Carl W., Baltimore
 Bachman, E. Charlotte, Baltimore
 Badenhoop, William H., Baltimore
 Bageant, A. Granville, Washington, D. C.
 Bailey, Read T., LaPlata
 Ballard, Fannie L., Arlington, Va.
 Balton, Esther E., Baltimore
 Barthel, Carl C., Catonsville
 Baugher, Harry G., Catonsville
 Beener, Randa E., Washington, D. C.
 Bell, David F., Jr., Dundalk
 Bell, Houston L., Williamsport
 Benavent, Arturo, Jr., San German, P. R.
 Benecke, John F., Towson
 Benson, Richard V., Silver Spring

Bentz, Frank L., Boonsboro
 Berkow, Joseph, Baltimore
 Berman, Stanley, Annapolis
 Bierly, Robert F., University Park
 Bindes, Louis L., Washington, D. C.
 Bishop, Russell G., Jr., Washington, D. C.
 Boston, Arnold N., Bergen, N. J.
 Bowen, Gilbert C., Washington, D. C.
 Boyd, Foster, Washington, D. C.
 Boyer, Elroy G., Breathedsville
 Bradley, Robert B., Washington, D. C.
 Brandes, Herbert G., Washington, D. C.
 Britton, James E., Washington, D. C.
 Brooks, Helen M., Chevy Chase
 Brosius, Dorothy G., Baltimore
 Brown, Norma D., Landover
 Brown, Warren F., Mt. Rainier
 Buckingham, Ritchie, Washington, D. C.
 Burr, E. Marguerite, Leonia, N. J.
 Butt, Florence L., Rockville
 Byrn, Rosemary, Cambridge
 Campbell, Doris P., Arlington, Va.
 Carlton, Jean F., Fair Haven
 Carmel, Macy, Phoebus, Va.
 Carroll, Vivian M., Long Branch, N. J.
 Carson, Thomas E., Jr., Towson
 Carter, Mary V., Bethesda
 Cask, Vivienne N., Old Fort Niagara, N. Y.
 Cassel, Douglass W., Baltimore
 Chambers, Charles L., Washington, D. C.
 Ciotola, Joseph A., Baltimore
 Clark, Charles H., Bethesda
 Clark, Elizabeth J., Takoma Park
 Claybourne, Nevin E., North Beach
 Cochrane, William K., Pittsburgh, Pa.
 Cohen, Ethel J., Winston-Salem, N. C.
 Cohen, Helyn E., Elizabeth, N. J.
 Cohen, Samuel, Baltimore
 Cohen, Sidney C., Baltimore
 Cole, Milton S., Laurel
 Coleman, William J., Jr., Baltimore
 Cook, Coleman B., Jr., Baltimore
 Cook, George R., Silver Spring
 Cooper, William I., Colonial Beach, Va.
 Craig, Raymond E., Edmonston
 Crandell, William P., Shadyside
 Crilley, Francis J., Washington, D. C.
 Cunningham, Richard E., Washington,
 D. C.
 Daggett, Jean A., Takoma Park
 Dantoni, Joseph L., Baltimore
 Davis, Burton F., Narberth, Pa.
 Davis, Gene B., Washington, D. C.
 Dennis, Elizabeth J., Ocean City
 Derrick, Dan M., Washington, D. C.
 Dew, William, Jr., Baltimore
 DeWaters, Frederick J., Havre de Grace
 Diggs, William B., Jr., Baltimore

Dodd, Patricia, Savannah, Ga.
 Douglass, Marion, Swansea, Mass.
 Doukas, Harry M., Washington, D. C.
 Dowd, James F., Baltimore
 Downey, Hugh P., Washington, D. C.
 Dunbar, Leslie W., Baltimore
 Dunham, John N., Northville, N. Y.
 Duty, Mary C., Baltimore
 Easter, Donald P., Washington, D. C.
 Edson, Donald C., Billings, Montana
 Ehman, Shirley A., New York, N. Y.
 Eichhorn, Henry C., Jr., Baltimore
 Einbinder, S. Anita, Hagerstown
 Eisele, Charlotte, Bethesda
 Elgin, Joseph F., Hagerstown
 Elliott, Howard E., Baltimore
 Embrey, Jacqueline L., Washington, D. C.
 England, Collin B., Washington, D. C.
 England, Helen T., Rockville
 England, William H., Washington, D. C.
 Ennis, Marion R., Westover
 Fairbanks, Garland W., Baltimore
 Fardwell, C. Leonard, Baltimore
 Farina, Yolanda L., Hyattsville
 Faris, James B., Jr., Washington, D. C.
 Feldman, E. Harriet, Salisbury
 Ferry, Charles H. B., Washington, D. C.
 Filgate, George E., Jr., Washington, D. C.
 Finch, Ellen L., (Mrs.), Branchville
 Finkelstein, Hortense E., Wilmington, N. C.
 Francke, Alma, Washington, D. C.
 Fugitt, Howard D., Washington, D. C.
 Fulford, Robert F., Baltimore
 Galt, Dwight B., Hyattsville
 Garrett, Marshall J., Washington, D. C.
 Gay-Lord, Henry L., Baltimore
 Gendason, Daniel L., Washington, D. C.
 Gervasio, Joseph P., Washington, D. C.
 Ginsburg, Abraham, Brooklyn, N. Y.
 Ginsburg, Herbert, Brooklyn, N. Y.
 Glenn, Carmela A., (Mrs.), Washington,
 D. C.
 Goff, Russell H., Washington, D. C.
 Goldblatt, Hyman, Washington, D. C.
 Goldstein, Albert E., Jr., Baltimore
 Goode, Eloise J., Maddox
 Goodgal, Sol H., Baltimore
 Grave de Peralta, Raoul A., Camaguey,
 Cuba
 Greenip, John F., Washington, D. C.
 Grigg, Walter K., Jr., Albany, N. Y.
 Griswold, Russell E., Fort Washington
 Grollman, Jerome, Baltimore
 Groves, Doris E., Waldorf
 Hampshire, Doris L., Towson
 Hance, John C., Washington, N. J.
 Hancock, John C., Washington, D. C.
 Hanlon, Lucile A., Hyattsville

Harn, John N., Baltimore
Harris, LeRoy S., Damascus
Harrison, John T., Avalon
Hartman, James H., Jacksonville, Florida
Harzenstein, Maxine, Washington, D. C.
Harzenstein, Phyllis, Washington, D. C.
Havens, Phyllis L., Kensington
Hayden, Richard C., Chevy Chase
Hazard, Alfred S., Takoma Park
Heaster, Joy L., Salisbury
Heath, Phillip C., College Park
Hein, Charles L., Glen Burnie
Helfer, Mildred C., Landover
Henry, Robert C., College Park
Herrmann, Albert C., Baltimore
Heslop, Robert W., Mt. Rainier
Hevener, Kathleen H., Gambrills
Hewitt, Barton G., Baltimore
Hicks, Fred C., Washington, D. C.
Hill, Harry E., Baltimore
Hoen, Anne G., Glyndon
Hoffmaster, Margaret L., Funkstown
Holbrook, William A., College Park
Holland, Park, Jr., Washington, D. C.
Holt, Bette E., Washington, D. C.
Hopkins, George C., College Park
Howard, Jane C., University Park
Hughes, Erma K., Chevy Chase
Hughes, Mary K., Quincy, Illinois
Hutchins, Miriam E., Barstow
Huyck, Marjorie E., Baltimore
Hyde, Myra K., Washington, D. C.
Hyman, Gilmore, Brooklyn, N. Y.
Inches, Robert W., Laytonsville
Insley, Robert S., Baltimore
Jack, William G., Port Deposit
Jacques, Julia M., Smithsburg
James, H. Alice, Silver Spring
Janof, Marie M., Washington, D. C.
Jeandros, Julian J., Hawthorne, N. J.
Johnston, Corinne C., Chevy Chase
Jones, Cullen B., Washington, D. C.
Jones, James E., Baltimore
Jones, John W., Jr., Baltimore
Kagle, Helen J., Owings Mills
Kaiser, Julius A., Jr., Kensington
Kane, Mary E., Silver Spring
Karrer, Enoch, Washington, D. C.
Katzenberger, William L., Catonsville
Kavanaugh, Emmett P., Jr., Ellicott City
Keeny, Roy E., Mt. Rainier
Keller, Vivian E., College Park
Kennard, Katherine E., Washington, D. C.
Kennedy, Marie L., Baltimore
Kercher, Frances L., Paoli, Pa.
Kerwin, Walter J., Bennings Station, D. C.
Kimbel, Milton, Washington, D. C.
King, Nancy R., Annapolis

Kitchin, William M., Washington, D. C.
Kluge, Doris V., Washington, D. C.
Kneessi, Robert W., Riverdale
Knight, Anza P., Baltimore
Koehler, Walter O., Washington, D. C.
Krogmann, Carl F., Washington, D. C.
Kuhlman, Harry S., Sharptown
Kuhlman, Robert S., Sharptown
Kurzenknebe, Catherine E., Harrisburg, Pa.
Kuslovitz, Irene E., Baltimore
Kypta, Harold A., Washington, D. C.
Lambert, Henry D., Washington, D. C.
Lane, Arthur M., Washington, D. C.
Lansdale, Thomas F., Sandy Spring
Lautenberger, George F., Baltimore
Lawrie, David R., Silver Spring
Lawshe, Roger D., Takoma Park
Lebeck, Clara G., Cumberland
Leith, Lahoma, University Park
Lempke, Charles T., Washington, D. C.
Lentz, Pauline F., Arnold
Lewis, Howard I., Washington, D. C.
Lewis, John H., Washington, D. C.
Lieberman, Gladys R., Jersey City, N. J.
Livingston, Paul S., Washington, D. C.
Loker, William M., Leonardtown
Longwill, Kenneth R., Jr., Oakland Beach, R. I.
Lucido, Samuel J., Jr., Baltimore
Lyon, Rosalie T., Hyattsville
Machen, Val, Washington, D. C.
Machin, Frank H., Jr., Baltimore
Martin, Cecil R., Smithsburg
Martin, Gerard J., Annapolis
Maslin, William R., Port Chester, N. Y.
Mayfield, Robert E., Jr., Chevy Chase
McCarty, Barbara I., Washington, D. C.
McCardell, Ethel C., Hagerstown
McCurry, June E., Takoma Park
McDevitt, Richard C., Baltimore
McHale, Richard F., Washington, D. C.
McKinley, Anne C., Washington, D. C.
McLaughlin, John L., Yonkers, N. Y.
McLaughlin, Lillian P., Baltimore
McManus, Mildred A., Berwyn
Mead, James M., Washington, D. C.
Meade, Arthur C., Jr., Baltimore
Meade, John P., College Park
Mercer, Laura L., Landover
Merdinger, Bernardine, Flushing, N. Y.
Miller, Robert J., Severna Park
Millikan, Mary, Washington, D. C.
Mintzer, Donald W., Ocean City, N. J.
Mitchell, John W., Baltimore
Moon, Arthur P., Silver Spring
Moon, Joan M., Silver Spring
Moore, John L., Washington, D. C.

Moriarty, Eugene H., Washington, D. C.
Morton, John, Mt. Airy
Mosberg, William H., Jr., Baltimore
Motley, Harry A., Washington, D. C.
Murrell, Amelia E., Crisfield
Musgrave, Frank, Baltimore
Neal, Walter L., Frostburg
Newell, Donald E., Centreville
Nichols, William J., Washington, D. C.
Nichter, Harry F., Jr., Takoma Park
Nimmo, Thomas G., Street
Norment, Richard B., Hagerstown
Norton, Alfred S., Washington, D. C.
Novak, A. Edwin, Baltimore
Novak, Jordan C., Washington, D. C.
Ogden, Ellen A., Baltimore
Olmstead, Merlin E., Anacostia Station
Oursler, Mildred E., Jessup
Ovitt, Harry C., Chevy Chase
Page, Jane E., Accokeek
Passin, Roy, Washington, D. C.
Patrick, Mary R., Westernport
Perkins, Katharine, Baltimore
Pinkerton, William F., Halethorpe
Podolsky, Dolly, Baltimore
Podolsky, William P., Baltimore
Polikoff, Marvin, Baltimore
Porter, Leonard W., Jr., Catonsville
Portuguese, Leonard K., Newark, N. J.
Potter, Robert T., Garrett Park
Prentice, Gerald E., Hyattsville
Prostic, Abraham, Baltimore
Punte, Charles L., Jr., Baltimore
Ramsey, Roy S., Jr., Washington, D. C.
Rau, Hammond, Brunswick
Rawls, Estelle H., Silver Spring
Reed, Nancy S., Schenectady, N. Y.
Rees, Evelyn M., Silver Spring
Reinstedt, Beverly J., Valley Stream, N. Y.
Ressig, Charlotte M., Baltimore
Rice, Daniel G., Temple Hills
Ricketts, Sarah A., Catonsville
Riggs, Mary L., Gaithersburg
Riley, Eugene J., Sparrows Point
Roberts, Frances A., Washington, D. C.
Robinson, Stanley J., Baltimore
Rocklin, Doris J., Washington, D. C.
Roelke, Margaret E., Brunswick
Rogers, Marie M., Richmond, Va.
Rolfes, Harry F., Brentwood
Rossiter, Melvin C., Baltimore
Rowe, Abner T., Washington, D. C.
Rowe, Dora M., Brentwood
Rowe, William B., Jr., Gambrills
Royal, Doyle P., Washington, D. C.
Rubin, Lillian R., Washington, D. C.
Ryon, Ann E., Staten Island, N. Y.
Ryon, Mary F., Staten Island, N. Y.

Sachs, Harris H., Washington, D. C.
Sagner, Alan L., Baltimore
Santaniello, Nick J., Norwalk, Conn.
Savoy, Joycelyn L., Mamou, La.
Sawyer, Arthur W., Baltimore
Schmaltz, Helene A., Newark, N. J.
Schultz, Lenora, Lynbrook, N. Y.
Schwartz, Irving, Washington, D. C.
Scopi, John D., Jr., Washington, D. C.
Scott, John L., Catonsville
Seal, William A., Jr., Baltimore
Shansey, George T., Washington, D. C.
Shaw, Charles E., Jr., Cumberland
Shay, Clarence M., Jr., Mt. Vernon, N. Y.
Shepard, Elizabeth C., Chevy Chase
Shepsle, Philip L., Hagerstown
Sheridan David L., Bronx, N. Y.
Sherman, Andrew N., Baltimore
Shirey, Orville C., Cumberland
Shorser, Natalie I., West New York, N. Y.
Shuman, Beatrice, Scotland
Simms, Charles F., Bel Alton
Simons, George M., Cumberland
Skill, Elizabeth P., Homestead, Fla.
Skipton, Roy K., Mt. Rainier
Slee, Helen W., Bethesda
Sleeth, Annarose C., Hyattsville
Slesinger, Albert D., Pikesville
Smith, Beverly J., Nutley, N. J.
Smith, Frank B., Chevy Chase
Smith, Marilyn E., Quantico, Va.
Smyth, Randall B., Hagerstown
Snavey, Elizabeth L., Newark, N. J.
Sparhawk, Martha L., Washington, D. C.
Sparrow, Clifford V., Washington, D. C.
Spicer, Hiram H., III, Baltimore
Staggers, Delores, Laurel
Stavitsky, Edward J., Newark, N. J.
Steele, Robert B., Baltimore
Steinbach, Harvey B., Baltimore
Steinberg, Stanley H., Washington, D. C.
Stell, Theodore J., Washington, D. C.
Stevan, Mitchell S., Baltimore
Stewart, Nan, Silver Spring
Stichel, Fred L., Catonsville
Stone, Bette R., Baltimore
Stone, John H., Waldorf
Stotler, Frances I., Baltimore
Stowell, Ruth E., Westmoreland Hills
Stuart, LaRhett L., Jr., Washington, D. C.
Sullivan, Richard C., Baltimore
Tapper, Henrietta A., Brookline, Mass.
Team, Robert G., Washington, D. C.
Teller, Leslie W., Jr., Chevy Chase
Teller, M. Louise, Chevy Chase
Teubner, Raymond C., Ellicott City
Thumm, C. Ashton, Jr., Baltimore
Tillman, Ruth A., Brentwood

Tregellis, John S., Baltimore
 Trussell, Howard M., New York, N. Y.
 Trimble, Ernest C., Mt. Savage
 Tucker, Irma D., High Point, N. C.
 Vaile, Charles L., Jr., Washington, D. C.
 Vandegrift, Edward W., Greensboro
 Van Horn, Robert L., Baltimore
 Van Huizen, Adrian H., Mt. Rainier
 Vial, Theodore M., Riverdale
 Waldo, Willis, Silver Spring
 Walton, Edward, Washington, D. C.
 Ward, George B., Jr., Washington, D. C.
 Waters, Blanche V., Germantown
 Waters, James B., Washington, D. C.
 Watts, Holt F. B., Jr., Washington, D. C.
 Weare, Josephine W., Washington, D. C.
 Weber, Harriet W., Washington, D. C.
 Webster, Harvey O., Linthicum
 Wehr, Everett T., Washington, D. C.
 Weintraub, Joseph, Baltimore
 Wellslager, John A., Baltimore
 Werner, Gunther A., Towson
 White, Ellen G., Hoopersville
 White, Fowler F., West Hartford, Conn.
 White, Ira, Hyattsville

Part Time

Artress, Frank L., Takoma Park
 Blackman, Mauly N., Woodside Park
 Carter, Mamie R., Washington, D. C.
 Casbarian, Louise W., Riverdale
 Denney, Fred H., Bladensburg
 Druz, William, Baltimore
 French, Samuel L., Rumbley
 Fuerst, Robert G., Hyattsville
 Glinski, Joseph F., Ammendale
 Groseclose, Paul H., Silver Spring
 Hansen, Harold, Takoma Park
 Huffman, Yale B., Greenbelt

Unclassified

Bigoness, Laura M., Landover
 Hammer, Ralph C., Cumberland

COLLEGE OF COMMERCE

Senior Class

Benbow, Robert P., Sparrows Point
 Bradley, Robert J., Hyattsville
 Capossela, Thomas J., Washington, D. C.
 Cornnell, Ellner A., Cottage City
 Crocker, L. Eleanor, Baltimore
 Edlavitch, Robert Hyattsville
 Eierman, George H. P., Baltimore
 Fenster, Sidney J., Washington, D. C.
 Frey, Louis M., Mt. Rainier

White, Jack C., Winding Gulf, W. Va.
 Wienecke, Edward L., Baltimore
 Wiggins, Robert A., Washington, D. C.
 Wilberger, Yvonne M., Indian Head
 Wilcox, Lasca J., College Park
 Wilcox, Stanley, Rockville
 Williams, Frances D., Cumberland
 Williams, William O., Woodstock
 Willingham, Doris J., Bethesda
 Wills, Jacque L., Baltimore
 Witsell, Edward F., Washington, D. C.
 Wolfe, Clarence E., Smithsburg
 Woodburn, Dale B., Mt. Rainier
 Woodward, Arthur F., Rockville
 Worthington, Leland G., Jr., Berwyn
 Wright, Robert H., Greensboro
 Yates, Sarah J., Alexandria, Va.
 Yesbek, William R., Washington, D. C.
 Yoffa, Miriam A., Lynn, Mass.
 Yowell, William B., Jr., Washington, D. C.
 Ziegler, Mary T., Washington, D. C.
 Zimmer, David J., Silver Spring
 Zinberg, Norman E., Baltimore
 Zitreen, Zelda, Freeport, N. Y.

Kullman, Paul S., Takoma Park
 Langbein, Mary V., Hyattsville
 Maris, Helen B., Riverdale
 Pearsall, Dorothy M., Riverdale
 Saylor, Zella P. (Mrs.), Hyattsville
 Seybold, Gilbert R., Greenbelt
 Seymore, George, Washington, D. C.
 Shewbridge, Benjamin B., Baltimore
 Sowell, Rae S., Greenbelt
 Stein, Martin K., Baltimore
 Sullivan, Joseph J., Washington, D. C.

Hunt, Robert M., Washington, D. C.
 Hyman, Harold, Meriden, Conn.

Neiman, Robert M., Mt. Vernon, N. Y.
 O'Neill, Richard J., Baltimore
 Panciotti, Michael E., Sparrows Point
 Parks, John A., Jr., Cumberland
 Reindollar, Helen L., Baltimore

Junior Class

Adams, Robert W., Baltimore
 Askin, Nathan, Baltimore
 Badenhoop, H. John, Baltimore
 Beamer, Francis X., Washington, D. C.
 Borden, Burton D., Washington, D. C.
 Brown, Robert S., W. Hazleton, Pa.
 Brown, William E., Jr., Brooklyn, N. Y.
 Chaney, Robert J., College Park
 Chumbris, Angelos N., Washington, D. C.
 Chumbris, Cleom G., Washington, D. C.
 Cook, H. Irvin, Hyattsville
 Coyle, M. Lorraine, Upper Marlboro
 Crisafull, Joseph, Washington, D. C.
 Davidson, Oscar M., Baltimore
 Davis, W. Bruce, Silver Spring
 Dieffenbach, Albert W., Garrett Park
 Dorfman, Sidney A., Washington, D. C.
 Duff, Edward H., Tall Timbers
 Flax, George L., Washington, D. C.
 Gifford, John F., Washington, D. C.
 Harlan, Edwin F., Riverdale

Sophomore Class

Aiken, Bernard S., Cockeysville
 Altmann, Andrew T., Baltimore
 Altschuler, Leon, Washington, D. C.
 Anson, Bert W., Washington, D. C.
 Aymold, Bernard L., Baltimore
 Barr, Charles M., Easton
 Barry, Caroline L., Washington, D. C.
 Bastian, Charles W., Jr., Washington, D. C.
 Birmingham, Michael J., Sparrows Point
 Boice, John E., Jr., Washington, D. C.
 Bradley, Alan T. J., Baltimore
 Brady, Robert C., Hyattsville
 Burke, Robert, Hyattsville
 Burns, Robert B., Havre de Grace
 Burnside, James B., Washington, D. C.
 Carey, Frank W., Jr., Dundalk
 Chandler, Edmond T., Westmoreland Hills
 Clunk, John J., Hyattsville
 Cohen, Abraham, Washington, D. C.
 Cohen, Morton G., Baltimore
 Corridon, Donald C., Washington, D. C.
 Covey, Carlton, Easton
 Custis, John K., Washington, D. C.
 Daiker, John A., Washington, D. C.
 Davies, Tom A., Baltimore
 Davis, A. I., Havre de Grace

Stup, Charles R., Frederick
 Todd, Ira T., Crisfield
 Weber, N. Bond, Oakland
 Woodwell, Lawrence A., Kensington
 Yockelson, Bernard A., Washington, D. C.

Healey, James W., Hagerstown
 Hughes, Fred J., Jr., Chevy Chase
 Hutton, Carroll S., Baltimore
 Ireland, Julius W., Baltimore
 Kemper, James D., Washington, D. C.
 Kennedy, Henry A., Mason City, Iowa
 Kummer, Stanley T., Baltimore
 Lawrence, George E., Hanover, Pa.
 Loftis, Randall M., Silver Spring
 Magruder, Ruth T., Washington, D. C.
 Peregoff, Arthur, Frederick
 Phillips, Jay M., Baltimore
 Scates, Charles E., Washington, D. C.
 Smith, Hateva V., Greensboro
 Skotnicki, Frank J., W. Hazleton, Pa.
 Steinberg, Douglas S., College Park
 Thompson, C. Linwood, Baltimore
 Tyser, Ralph J., Baltimore
 Valenstein, Murray A., Baltimore
 Wyatt, Henry F., Baltimore
 Young, Herbert S., Washington, D. C.

Detorie, Francis J., Washington, D. C.
 Disharoon, Charles R., Salisbury
 Dwyer, Frank A., Baltimore
 Engel, Mary L., Washington, D. C.
 Evans, Richard M., Washington, D. C.
 Eyler, John D., Jr., Baltimore
 Fernald, Llewellyn K., Washington, D. C.
 Forsberg, Robert A., Rockville
 Frey, Ralph W., Jr., Mt. Rainier
 Fugitt, Donald J., Washington, D. C.
 Gantz, Guy G., Jr., Hagerstown
 Garlitz, Vincent L., Cumberland
 Gillett, Donald M., Washington, D. C.
 Grier, Jack G., Towson
 Grover, O. Dunreath, Washington, D. C.
 Hambleton, Harry B., Washington, D. C.
 Hancock, Charles W., Baltimore
 Harris, Sam, Baltimore
 Heyer, Frank N., Baltimore
 Hicks, Clarence M., Washington, D. C.
 Himelfarb, Norman H., Washington, D. C.
 Holzapfel, Norman McC., Hagerstown
 Howard, Eugene, Baltimore
 Hutchinson, Richard F., Chevy Chase
 Jansson, George A. W., Baltimore
 Jarboe, Paul E., Mechanicsville

Johnson, Thomas Lee, Washington, D. C.
 Joy, Bernard F., Washington, D. C.
 Joyce, Joseph M., Hyattsville
 Katz, Leonard R., Brooklyn, N. Y.
 Kleiman, Albert L., Baltimore
 Krouse, William E., Bethesda
 Kytte, Stuart F., Washington, D. C.
 Labovitz, Henry P., Baltimore
 LeFrak, Samuel J., Brooklyn, N. Y.
 Levin, Naomi H., Baltimore
 Lewis, E. Grace, Crownsville
 Lewis, John E., Silver Spring
 Lichliter, Lawrence D., Washington, D. C.
 Lloyd, Edward M., Washington, D. C.
 Loreman, Austin J., Crisfield
 Mears, Frank D., Pocomoke
 Mehl, Charlson I., Washington, D. C.
 Mendelson, Robert I., Baltimore
 Minion, Allen J., Newark, N. J.
 Mintzer, John M., Ocean City, N. J.
 Mueller, John L., Baltimore
 Multz, Ben S., Capitol Heights
 Ochsenreiter, Gene C., Chevy Chase
 Panitz, Leon J., Baltimore
 Pappas, George H., Baltimore
 Peacock, Franklin K., Takoma Park
 Pelczar, Henry W., Pikesville
 Rea, William, Takoma Park
 Rice, Robert C., Jefferson
 Rittase, Billie J., Cumberland

Freshman Class

Akehurst, Ruth M., Sparks
 Allnutt, Richard C., Germantown
 Arnold, Dorothy H., Hyattsville
 Arosemena, Conrado A., Panama, R. P.
 Atwater, Edward C., Cheverly
 Barker, Charles R., Jr., Washington, D. C.
 Beitler, Frederic V., Relay
 Berman, Sidney M., Baltimore
 Booth, William T., Salisbury
 Boswell, Harry A., Hyattsville
 Bowers, Charles W., Corning, N. Y.
 Bugos, Paul E., Greenbelt
 Burges, Sam H., Takoma Park
 Carry, Albert J., Washington, D. C.
 Cartee, Robert S., Hagerstown
 Chamberlin, Garwood, Chevy Chase
 Cherry, Jack F., Washington, D. C.
 Chiari, Carlos A., Panama City, R. P.
 Cody, John A., Great Neck, N. Y.
 Diamond, William C., Gaithersburg
 DiBlasi, Francis P., Bethesda
 Dorn, Robert L., Riverdale
 Dunn, Charles W., Berwyn
 Dunn, James E., Washington, D. C.
 DuVall, Jacque B., Bethesda
 DuVall, Richard A., Rockville

Ritter, Ira M., Hagerstown
 Robertson, Sherrard A., Washington, D. C.
 Root, Elizabeth A., Pittsburgh, Pa.
 Salganik, Alvin C., Baltimore
 Sanchiz, Jose C., Panama City, R. P.
 Saum, Robert W., Lanham
 Schmitt, Edwin M., Chevy Chase
 Schultz, Selma, Lynbrook, N. Y.
 Sedlak, Emery P., Greenbelt
 Senseman, Rodney L., Silver Spring
 Sherline, David M., Garrett Park
 Shields, Leonard J., Atlantic City, N. J.
 Silverman, Norman H., Washington, D. C.
 Skeen, Richard T., Baltimore
 Smith, Warrington G., Phoenix
 Springer, Earl V., Hagerstown
 Stuver, Richard L., Washington, D. C.
 Suit, William J., Washington, D. C.
 Thurston, William B., III, Relay
 Tilles, Norman D., Baltimore
 Todd, Gary T., Baltimore
 Valenti, Gino, Washington, D. C.
 Vollmer, Harry F., III, Baltimore
 Wagner, Ernest G., Hyattsville
 Wallace, James C., Washington, D. C.
 Worthington, Raymond L., New Milford, Conn.
 Young, Elton F., Washington, D. C.
 Zimmerman, Robert E., Catonsville

Epstein, Bernard, Baltimore
 Fisher, Eugene S., Baltimore
 Fletcher, Theodore E., Jr., Preston
 Folstein, Morton H., Washington, D. C.
 Gilchrist, Arthur R., Washington, D. C.
 Gonzalez, Jorge E., Salinas, P. R.
 Gossage, Howard S., Washington, D. C.
 Hales, L. Roman, Elmhurst, N. Y.
 Hall, Kenneth D., Washington, D. C.
 Hambleton, J. Aldrich, Washington, D. C.
 Hardey, James W., Washington, D. C.
 Hare, Ray M., Jr., Chevy Chase
 Hathaway, Neal L., University Park
 Hepburn, John W., Brentwood
 Hodson, Annesley E., Baltimore
 Hopkins, William W., Jr., Bel Air
 Horn, Arthur M., Hyattsville
 Hutson, Paul B., Cumberland
 Hyman, Robert L., Baltimore
 Jackson, J. Douglas, Takoma Park
 Jackson, Paul A., Jr., Hyattsville
 James, Edwin G., Jr., Baltimore
 Jordan, Svend E., Chevy Chase
 Keagy, Lowell T., Washington, D. C.
 Kelly, C. Markland, Jr., Baltimore
 Kidd, Franklin F., Washington, D. C.

King, Robert P., Baltimore
 Kinsel, James N., Washington, D. C.
 Klein, Louis E., Baltimore
 Kramer, Arthur L., Baltimore
 Lansdale, Richard H., Jr., Sandy Spring
 LaPorte, Frank B., Lanham
 Lavenstein, Alvin, Baltimore
 Layton, William R., Hurlock
 Little, Clifford, Washington, D. C.
 Luntz, John G., Govans
 Lurba, Violet C., Washington, D. C.
 MacFarlane, Ivor S., Jr., Washington, D. C.
 MacKenzie, Larry, Silver Spring
 Maisel, Lee J., Hyattsville
 Mann, Stanley R., Norristown, Pa.
 McAuliffe, Richard G., Great Neck, N. Y.
 McCloskey, Paul D., Cumberland
 Meacham, Richard H., Catonsville
 Meier, Claire L., New Rochelle, N. Y.
 Meltz, Harry R., College Park
 Mericle, Harold I., Washington, D. C.
 Mintzer, Lynwood F., Jr., Ocean City, N. J.
 Mishtowt, Basil I., Chevy Chase
 Molofsky, Albert L., Baltimore
 Montgomery, Robert J., Washington, D. C.
 Moore, Samuel V., Washington, D. C.
 Moran, Robert T., Chevy Chase
 Morris, William VanN., Hyattsville
 Morrow, Mary E., Washington, D. C.
 Moseley, Robert M., Beltsville
 Myers, Harold E., College Park
 Nierenberg, Irving, Brooklyn, N. Y.
 Nylen, Edward W., Washington, D. C.

Part Time

Hanson, William C., Jr., Washington, D. C.

Unclassified

Bunevich, Milton, Washington, D. C.

Evening Course, Baltimore

Aham, Bernard, Jr.
 Benser, Ethel M.
 Benson, Mark T.
 Bochau, Carl
 Bockelmann, Catherine
 Booton, Helen
 Bouchelle, Robert
 Brady, Eleanor
 Brower, Edmund
 Campbell, John P.
 Dayton, Brady, Jr.
 Freund, John
 Gambrill, F. B.
 Gile, Miriam
 Heller, Tressa
 Hess, Richard S.
 Himmelfarb, Ann
 Kirby, William
 McBride, Carroll
 McDaniel, Frances
 Meredith, Doris W.

Pendleton, George, Washington, D. C.
 Pettit, David R., Washington, D. C.
 Pfefferkorn, Samuel L., Jr., West Friendship
 Pratt, Page B., Washington, D. C.
 Pulliam, James W., Washington, D. C.
 Reese, Elmer L., Baltimore
 Reside, Marjorie S., Silver Spring
 Rigby, Elmer C., Baltimore
 Rimmer, Harry, University Park
 Roach, William O., Baltimore
 Rollins, Robert H., Washington, D. C.
 Rubin, Herman, Baltimore
 Rumpf, Russell M., Beltsville
 Samuelson, Morton S., Baltimore
 Schultz, John H., Chevy Chase
 Seigel, Martin P., Washington, D. C.
 Seitz, William N., Washington, D. C.
 Seviour, Carolyn E., Silver Spring
 Tate, John K., Middletown
 Ulman, Bernard, Jr., Baltimore
 Vannais, Leon S., Leonia, N. J.
 Vogel, Albert E., Hyattsville
 Wailes, John R., Baltimore
 Walker, Frederick B., Beltsville
 Ward, Kent, Chevy Chase
 Warfield, Allen, Jr., Baltimore
 Watkins, Bradley E., Mt. Airy
 White, Joseph H., Maplewood, N. J.
 White, William P., Anacostia, D. C.
 Wilkins, Stanley H., Mt. Airy
 Williams, Paul M., Washington, D. C.
 Wrightson, W. Tylor, Easton
 Young, Eliot R., Chevy Chase

Lemmermann, Henry J., College Park

Race, Thornton C., Hagerstown

Mezzullo, Frank
 Miller, Thomas
 Mulholland, Elizabeth
 Ostrander, Montgomery
 Owens, Ann
 Powers, Margaret
 Robinson, Carroll
 Rockwell, Merle
 Rouse, John
 Rowe, M. Elizabeth
 Shank, Hazel
 Silverman, Alexander
 Smith, Dallas H.
 Sneeringer, William, Jr.
 Stewart, Granvel
 Stonestreet, Guy
 Swanson, Blanche
 Whitehouse, Alton
 Widman, George
 Wilson, Charles
 Woodyear, William

SCHOOL OF DENTISTRY

Senior Class

<p>Aaronson, Fabius F., Washington, D. C. Allen, Joseph P., New Martinsville, W. Va. Auerbach, Bernard B., Baltimore Barsamian, Samuel, Providence, R. I. Blais, Raymond, Holyoke, Mass. Blevins, George C., Centreville Bozzuto, John M., Jr., Waterbury, Conn. Brown, Frank A., Lansdowne Cannaday, Henry L., Roanoke, Va. Carvalho, Antone R., New Bedford, Mass. Cavallaro, Ralph C., Branford, Conn. Chan-Pong, Bertrand O., Port-of-Spain, B. W. I. Davis, James C., Silver Spring Dunn, Naomi A., New Britain, Conn. Edgar, Benjamin D., Viola, Ill. Eichenbaum, Irving W., New Haven, Conn. Fallon, Charles H., Trenton, N. J. Feindt, William B., Baltimore Francis, Garnet P., Jr., Alexandria, Va. Gane, Eugene M., Hartford, Conn. Gilden, Paul, Baltimore Goldstein, Leonard N., Hartford, Conn. Gorsuch, Gilbert F., Dundalk Griesbach, Hans H., Naugatuck, Conn. Grove, Harry C., Jr., Fairplay Hirschman, Leonard M., Baltimore Hoffacker, Henry J., Hanover, Pa. Jacoby, Robert E., Haleshorpe Jakob, Robert, Norwalk, Conn. James, Verda E., Milford, Del. Johnson, Walter E., Berlin, N. H. Joyce, Osler C., Arnold Kader, Marshall I., Baltimore</p>	<p>Krug, Frederick R., Baltimore Labasauckas, Charles F., Watertown, Conn. Legum, Isidore, Baltimore Maislen, Irving L., Hartford, Conn. McConnell, William L., West Union, W. Va. McCracken, Jules, Cameron, W. Va. Meinster, Leon H., Baltimore Melson, William F., Wilmington, Del. Miller, Max, Baltimore Morris, Albert W., Salisbury Myers, Melvin, Washington, D. C. Noon, William J., Jr., Providence, R. I. Plaster, Harold E., Winston-Salem, N. C. Rabinowitz, Seymour A., New Britain, Conn. Randolph, Kenneth V., Lost Creek, W. Va. Reed, Paul, Port Henry, N. Y. Robinovitz, Irving K., Fall River, Mass. Rogers, Everett T., Waterbury, Conn. Rosen, Joseph G., New York, N. Y. Schoepke, Oscar J., Oakfield, Wis. Schriver, Alfred B., Bangor, Me. Shaudis, Leo J., Silver Creek, Penna. Shea, Erwin E., Hartford, Conn. Sidoti, Vincent F., Winsted, Conn. Stinebert, Edward R., Baltimore Tinsley, William C., Lynchburg, Va. Tipton, Dorsey R., Baltimore Varipatis, Michael S., Baltimore Waldman, Bernard, New Haven, Conn. Weiner, Irving S., Hartford, Conn. Wooden, John H., Jr., Baltimore Wright, Dan, Greenville, N. C.</p>
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Junior Class

<p>Belinkoff, Sidney A., Weehawken, N. J. Bonham, John T., Charleston, W. Va. Bookstaver, Julian B., Teaneck, N. J. Dabrowski, Benjamin A., Baltimore Diamond, Ben, Roanoke, Va. Goldhaber, Samuel, Flushing, N. Y. Kasawich, Julius I., Whitestone, N. Y.</p>	<p>Litchman, Burton, Edgewood, R. I. Lowander, George A., Jr., Queens Village, N. Y. Pessagno, Eugene L., Jr., Baltimore Piccolo, James A., New Haven, Conn. Randman, Bernard, Whitestone, N. Y. Westscott, Horace L., New London, Conn.</p>
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Sophomore Class

<p>Aurbach, Frederick, Idabel, Okla. Baker, Robert N., Kings Mountain, N. C. Beaven, Sterrett P., Baltimore Berman, Daniel E., Baltimore Betts, Robert L., Morris Plains, N. J. Birshtein, Benjamin, Atlantic City, N. J. Bohne, Edmund L., Bergenfield, N. J.</p>	<p>Bressman, Edward, Newark, N. J. Briskin, Melvin R., Springfield, Mass. Brotman, Alfred, Baltimore Burch, Joseph P., Clifton, N. J. Caldwell, Gilbert L., Baltimore Callaway, John S., Beckley, W. Va. Capone, Nicholas J., Baltimore</p>
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Castelle, Paul B., Baltimore
 Chernow, Abraham, New York, N. Y.
 Chmar, Phillip L., Rockville
 Cohen, Jerome S., Baltimore
 Collins, William M., Bellows Falls, Vt.
 Corbitt, Don C., Waverly, W. Va.
 DePasquale, Frank L., East Northport, N. Y.
 DeScherer, Morton, Englewood, N. J.
 Dubansky, Paul S., Baltimore
 Easton, James F., Romney, W. Va.
 Farrell, Daniel L., Norwich, Conn.
 Frey, Donald T., Catonsville
 Friedmann, Michael, Whitestone, N. Y.
 Golden, Maxwell S., South River, N. J.
 Gudwin, Abraham, New York, N. Y.
 Haggerty, Warren D., Jr., Hackensack, N. J.
 Hawkins, Virgil R., Jr., Union, S. C.
 Heller, Stanley, New York, N. Y.
 Hewitt, Earl C., Baltimore
 Hoffman, Barnet, Newark, N. J.
 Hyman, Harold, New York, N. Y.
 Hymanson, N. William, Somerville, N. J.
 Kapiloff, Bernard, New York, N. Y.
 Kapiloff, Leonard, New York, N. Y.
 Karow, Seymour M., Ellenville, N. Y.
 Kellar, Sidney, Ellenville, N. Y.
 Klingelhofer, Herbert E., Baltimore
 Koenig, Leonard, Brooklyn, N. Y.

Freshman Class

<p>Aldridge, William A., Baltimore Amatrudo, Andrew J., New Haven, Conn. Askins, Clifford F., New York, N. Y. Berman, Alexander N., Spring Valley, N. Y. Biega, Stanley G., Wallingford, Conn. Bixby, Daniel, Jamestown, N. Y. Chiques, Elsa L., Caguas, Puerto Rico Coccaro, Peter J., Jersey City, N. J. Cohen, Sylvan P., Baltimore Corder, Woodrow W., Clarksburg, W. Va. Coroso, Joseph T., Hartford, Conn. Criss, James T., Fairmont, W. Va. Daley, Raymond C., Pawtucket, R. I. Deneroff, Paul, New York, N. Y. Edwards, Paul M., Dundalk Eilenberg, Morris, Brooklyn, N. Y. Emburgia, Joseph A., Vineland, N. Y. Entelis, Stanley, New York, N. Y. Everson, Stewart, Washington, D. C. Gardner, Harry, Jr., Rutherford, N. J. Gibel, Charles, Brooklyn, N. Y. Goldstein, Richard H., Huntington, W. Va. Gratz, Ezra B. A., Brooklyn, N. Y. Helitzer, Bernard, Glens Falls, N. Y. Herman, Alan H., Maplewood, N. J.</p>	<p>Kornreich, Kenneth D., Waterbury, Conn. Lauro, Mario A., Waterbury, Conn. Lawrence, Ronald, Elk Mills Levy, Benjamin, Brooklyn, N. Y. Marano, Frank A., Newark, N. J. McClees, Joseph G., Baltimore McDaniel, Edward P., Jr., Jarrettsville Mishkin, Edward A., New York, N. Y. Ollman, Abraham, New York, N. Y. Parker, Malcolm M., Freehold, N. J. Policow, Myron A., Metuchen, N. J. Reusch, George, Cranford, N. J. Rosenberg, Edward G., Jamaica, N. Y. Rudo, Frederick B., Raspeburg Santeramo, John R., Brooklyn, N. Y. Schiller, LeRoy E., Newark, N. J. Schultheis, Carl H., Baltimore Singer, Max, Bridgeport, Conn. Sloan, Harry, Brooklyn, N. Y. Smith, Bernard, Hagerstown Smith, Joseph H., Hancock Spina, Russell, Jamaica, N. Y. Storch, Murray, Passaic, N. J. Taub, Charles, Newark, N. J. Toffic, John W., Bergenfield, N. J. Tolley, Leonard J., Brooklyn Park Vitolo, Erminio R., Brooklyn, N. Y. Weinger, Irving, Brooklyn, N. Y. Zeger, Jack I., Port Jervis, N. Y. Zuskin, Raynard F., Baltimore</p>
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Savage, Alvin H., Baltimore
 Schwartz, Harold, Rockaway Beach, L. I., N. Y.
 Steele, Glenn D., Dagsboro, Del.
 Stoopack, Chester J., Brooklyn, N. Y.
 Tighe, Joseph M., Raspeburg
 Toomey, Lewis C., Jr., Elkridge
 Toubman, Rosalind I., Hartford, Conn.
 Towson, Donald H., Dundalk

Waltman, Edwin B., Steubenville, O.
 Watsky, Howard F., Mount Vernon, N. Y.
 Watson, Earle H., Henderson, N. C.
 Weise, Hans E., Ridgewood, N. J.
 Weiss, Howard G., Glendale, N. Y.
 Wieland, John T., Baltimore
 Williams, Roger E., Norfolk, Va.
 Williamson, Riley S., Baltimore

Special Students

Erlich, William, Baltimore

Second Year Predental Class

Amatrudo, Felix F., New Haven, Conn
 Cerny, Henry F., Baltimore
 Cierler, Irving J., Baltimore
 Cooper, Bertram, Baltimore
 Ditrolio, James V., Kearny, N. J.
 Edwards, John J., Dundalk
 Greene, Willard T., Baltimore
 Kramer, Mervin, Baltimore
 Krieger, Leon, Baltimore
 Landes, Isaac J., Baltimore
 Leatherbury, George P., Baltimore
 Levy, Herbert S., Baltimore
 Liloia, Michael P., Nutley, N. J.
 Martin, William R., Baltimore
 Martino, Alfred A., Hartford, Conn.

Moffett, Virginia M., Catonsville
 O'Meara, John O., Torrington, Conn.
 Reilly, James T., Aguirre, Puerto Rico
 Robinson, Earl B., Balboa, Canal Zone
 Rothenberg, Joffre M., Baltimore
 Sauerman, Edward E. K., Jr., Linthicum Heights
 Shochet, Melvin, Baltimore
 Stern, Martin, Passaic, N. J.
 Sucoll, Sidney, Hartford, Conn.
 Tongue, Raymond K., Baltimore
 Wilkinson, Milton S., North Arlington, N. J.
 Yalovitz, Marvin Sigmond, Anniston, Ala.
 Zimmerman, John B., Schaefferstown, Pa.

First Year Predental Class

Aserinsky, Eugene, Brooklyn, N. Y.
 Brown, Warren E., Canon City, Col.
 Bruckner, Robert J., Union City, N. J.
 Campagna, Anthony P., Baltimore
 Capone, Celeste E., Baltimore
 Carliner, Louis E., Baltimore
 Davitz, Leonard, Baltimore
 Diener, Martin, Baltimore
 Dodd, John D., Baltimore
 Ebeling, William C., III, Baltimore
 Fales, Donald G., Baltimore
 Feit, Sylvan O., Baltimore
 Haimovitz, Herman, Baltimore
 Hollander, Morton H., Baltimore
 Karesh, Stanley H., Charleston, S. C.
 Kirshen, Sanford W., New York, N. Y.
 Kistner, Charles H., Halethorpe
 Kramer, Donald, Baltimore

Krasner, Herbert A., Newark, N. J.
 Lavine, Bernard S., Trenton, N. J.
 Leiphart, Mahlon P., York, Pa.
 Machen, August R., Baltimore
 Maxwell, George A., Jr., Severna Park
 Richman, George Y., New Britain, Conn.
 Shapiro, Edward, Baltimore
 Smith, Robert H., Harrington, Del.
 Steinberg, Leon, Baltimore
 Stillwell, Walter B., Jr., Baltimore
 Trommer, Felix T., Norwich, Conn.
 Vine, Leon, Baltimore
 Walder, Melvin J., Baltimore
 Walker, Owen, Jr., Catonsville
 Whaley, Wilson M., Jr., Baltimore
 Witman, Harold I., Newark, N. J.
 Zeender, Philip J., New Haven, Conn.
 Zemel, Hyman W., Baltimore

COLLEGE OF EDUCATION

Senior Class

Adams Clifton L., Silver Spring
 Alperstein, Benjamin, Baltimore
 Anders, Anne F., Frederick
 Armiger, Virginia G., Pindell
 Bailey, Donald E., Takoma Park

Bailey, Douglas A., Takoma Park
 Barker, Marian E., Washington, D. C.
 Biskin, Shirley L., Takoma Park
 Bohlin, Mary Hedda, Washington, D. C.
 Boose, Matilda D., Washington, D. C.

Bowling, Virginia P., Wicomico
 Bowman, Anne K., Annapolis Junction
 Brode, Carl K., Frostburg
 Burke, Myrtle G., McCoole
 Byers, G. Ellsworth, Lonaconing
 Cairns, Robert S., Prince Frederick
 Clopper, Elizabeth S. (Mrs.), Elkridge
 Eichlin, Doris E., Washington, D. C.
 Fowble, Florence W., Reisterstown
 Freas, Gordon K., Wheaton
 Freudenberger, John G., Baltimore
 Gordy, E. Marvel, Snow Hill
 Grindel, Jane H., Frostburg
 Guyther, Mary Anne, Mechanicsville
 Haas, Alice C., Jenkintown, Pa.
 Hamilton, Elizabeth W., University Park
 Hardesty, A. Marie, Newburg
 Harrison, Doris R., Baltimore
 Howard, William F., Baltimore
 Huber, Nora L., Baltimore
 Hutzell, William E., Washington, D. C.
 Kalbaugh, Hazel L., Luke
 Kephart, Mary E., Taneytown
 Manning, Laura, Silver Spring
 Martin, A. Grace, Hagerstown

Mayes, Irvin C., Timonium
 Mayes, Marian V., Phoenix
 Michelson, Elaine P., Washington
 Mileto, Catherine, Annapolis
 Murphy, C. Estella, Walkersville
 Nevy, Inez A., Cumberland
 Powell, Dorothy M., Dorsey
 Provenza, Dominic V., Catonsville
 Rabinowitz, Alexander, Brooklyn, N. Y.
 Rawley, Mary E., Hyattsville
 Schwarzmans, Ethel M., Washington, D. C.
 Shepperd, Regina B., Upper Falls
 Smith, Elizabeth J., Salisbury
 Smith, Mildred E., Walkersville
 Sollod, Leonard, Baltimore
 Sparling, Edith R., Washington, D. C.
 Speake, Mary M., Luray, Va.
 Stakem, Richard J., Jr., Midland
 Stevan, Diana, Baltimore
 Sullivan, Evelyn L., Hyattsville
 Trundle, Lucy W., Ashton
 Weber, June E., Baltimore
 Webster, Carolyn I., Pylesville
 Wheeler, Waverley J., Baltimore

Junior Class

Aitcheson, Genevieve, Laurel
 Ames, Ann C., Westmoreland Hills
 Anderson, Marian B., Hyattsville
 Baitz, Mildred, Washington, D. C.
 Barnes, Richard K., Sykesville
 Berg, Charles M., Prospect Park, Pa.
 Bollinger, Gladys G., College Park
 Bono, Ann M., Washington, D. C.
 Bono, Vivian E., Washington, D. C.
 Brenner, Helene T., Baltimore
 Burroughs, E. Elizabeth, Mechanicsville
 Chronister, Mason F., Baltimore
 Cline, Carl A., Monrovia
 Cronin, Frank H., Joppa
 Dietrich, Clayton A., Baltimore
 Dorsey, Nathan G., Mt. Airy
 Duncan, Laura R., District Heights
 Dunn, Katherine C., Silver Spring
 Evans, Hal K., Bladensburg
 Fout, Holmes M., Frederick
 Fricke, Annamaria H., Baltimore
 Gisriel, Austin E., Elkridge
 Green, Mildred E., Lonaconing
 Griffith, Ann M., Rockville
 Groves, Helen V., Cumberland
 Hart, Richard K., Hagerstown
 Hottel, Betty L., College Park

Iager, Helen T., Hyattsville
 Jarboe, Ann E., Leonardtown
 Kehoe, James H., Bel Air
 Keys, Virginia A., Laurel
 King, Judy A., Washington, D. C.
 Knepley, George W., Altoona, Pa.
 Kornmann, Lucille V., Baltimore
 Kreuzburg, Harvey W., Silver Spring
 Kuhn, Eleanor M., Bethesda
 Legge, Jane M., Cumberland
 Leites, Israel, Baltimore
 Long, Virginia M., Selbyville, Del.
 Meade, James G., Port Deposit
 Nordwall, Alice E., Hyattsville
 Plumer, Gertrude E., Huntingtown
 Pollack, Ethel, Baltimore
 Reynolds, Margaret S., Relay
 Rinehart, M. Susan, Relay
 Ross, Mary L., Cumberland
 Short, Katharine E., College Park
 Smith, Adria J., Baltimore
 Smith, Virginia E., Mount Airy
 Stoddart, A. Terris, Baltimore
 Teal, Lois A., Hyattsville
 Weidinger, Charles W., Baltimore
 Zurhorst, Mary O., Washington, D. C.

Sophomore Class

Adams, Ellen C., Aberdeen
 Albarano, Ralph J., Lilly, Pa.
 Applegarth, Vivian E., Honga

Arnold, William D., Baltimore
 Bell, Judson H., Aberdeen
 Bierly, Jack S., Sabillasville

Bishopp, Hazel E., Silver Spring
 Blattman, Margaret M., Riverdale
 Bodine, Mildred V., Silver Spring
 Bolden, Mary V., Oakland
 Boose, Barbara E., Washington, D. C.
 Boyda, John J., Iselin, Pa.
 Broome, Ethel M., Washington, D. C.
 Burkom, Philip, Baltimore
 Burton, Jean E., Cheverly
 Butler, Isabel R., Edmondston
 Chaires, Helen V., Queen Anne
 Cissel, Jean L., Sandy Spring
 Coffman, Maidee E., Washington, D. C.
 Cook, Mary H., Washington, D. C.
 Corcoran, Martha A., Kensington
 Corosh, Frances R., Annapolis
 Davis, Florence V., Grantsville
 Everly, Martha E., Baltimore
 Flynn, E. Patricia, Washington, D. C.
 Gienger, George H., Brentwood
 Gilleland, Catherine E., Chevy Chase
 Gray, Carolyn B., Poolesville
 Hall, Marguerite G., Baltimore
 Hurley, Robert F., Hyattsville
 Hyatt, Hilda M., Damascus
 Katz, Bertha, Washington, D. C.
 Lanahan, Reita M., Washington, D. C.
 Longest, Katherine A., Baltimore
 Maisel, Frederick C., Catonsville
 Maynard, Eurith L., Baltimore
 McFadden, Janet M., Mt. Rainier
 McGill, Caroline F., Thurmont

Freshman Class

Adkins, Isobel, Parsonsburg
 Albert, Jean S., Greenbelt
 Alperstein, Isadore H., Baltimore
 Barton, Margery R., Hyattsville
 Beard, Melva F., Annapolis Junction
 Bertrand, Lorraine K., Baltimore
 Bowling, Martha E., Hughesville
 Bright, Elmer F., Baltimore
 Buddington, Warren, College Park
 Carnin, Helen J., Baltimore
 Cohen, Elias, Baltimore
 Crane, Helen L., Hyattsville
 Culver, Burton E., Hyattsville
 Deitz, Alice E., Baltimore
 Duvall, Hiltrude A., Savage
 DuVall, Mearle D., Baltimore
 Evans, Ruth V., Washington, D. C.
 Ewing, Harry O., Berwyn
 Fields, Thomas M., Hyattsville
 Filbry, Herman W., Annapolis
 Foerster, Dorothy H., Washington, D. C.
 Fowkes, Ruth, Mt. Rainier
 Fraley, Harry H., Derwood
 Garlitz, Dorothy M., Cumberland

Melvin, Robert H., Washington, D. C.
 Mohle, Robert L., Berwyn
 Mondorff, Pershing L., Emmitsburg
 Murphy, Joseph M., Carney's Point, N. J.
 Murray, Norma L., Princess Anne
 Naughten, Edward T., Washington, D. C.
 Nelson, Clifford, White Hall
 Nordwall, Frances L., Hyattsville
 O'Hara, William J., Gambrills
 Owings, Jane C., Riverdale
 Poetzsch, Paul H., Baltimore
 Powers, Lillian, Jersey City, N. J.
 Ramer, E. Jean, Bethesda
 Reese, E. Jeanne, Washington, D. C.
 Roesler, Herbert S., Bayard, Va.
 Ross, Betsy, Takoma Park
 Ryon, Mary J., Waldorf
 Sargeant, Lida E., Silver Spring
 Schroeder, Leonard T., North Linthicum
 Schwartz, Rosalind, New York City, N. Y.
 Shaffer, Richard W., Johnstown, Pa.
 Shea, Katherine J., Holyoke, Mass.
 Smith, A. Grayson, Greensboro
 Smith, Robert H., Woodlyne, N. J.
 Stubbs, Mildred V., Mt. Rainier
 Taylor, Morton F., Perryville
 Trout, Maxine E., Walkersville
 Turner, Alice V., Washington, D. C.
 Vaught, Jeannette, Hyattsville
 Wolfinger, Margaret E., Hagerstown
 Zimmerman, Margaret C., Frederick

Littman, Morton, Baltimore
 Luskin, Joseph, Baltimore
 Main, Robert L., Seat Pleasant
 Markowitz, Carroll, Baltimore
 McNeil, J. Paul, Baltimore
 Meiser, Margaret R., Baltimore
 Mercer, M. Virginia, Baltimore
 Mermelstein, Arnold, Baltimore
 Monocrusos, Marguerite S., Baltimore
 Mullin, Beryl H., Aberdeen
 Newmaker, Phyllis J., Brentwood
 Pappas, Harry G., Baltimore
 Parlett, Mary D., Ellicott City
 Pfeiffer, H. Shirley, Teaneck, N. J.
 Pottorff, Charles C., Hagerstown
 Powell, Mary V., Hagerstown
 Pyle, Shirley D., College Park
 Rawlings, Emma W., Westwood
 Riley, William T., Cumberland
 Rockstroh, Henry J., Ellicott City
 Romm, Pearl J., Takoma Park
 Sansone, Marie J., Baltimore
 Savitz, Melvin M., Baltimore
 Schoenhaar, William H., Baltimore

Part Time

Abbott, Kathryn K. (Mrs.), Bennings, D. C.
 Alder, Betty L., Princess Anne
 Alder, Guy D., Greenbelt
 Anderegg, Eunice B., Washington, D. C.
 Angel, Ralph L., Dundalk
 Babcock, Harold R., Greenbelt
 Bargas, Joseph E., Greenbelt
 Becraft, Mabel V., Washington Grove
 Bedsworth, Margaret C., Washington, D. C.
 Benbow, Gene, Clinton
 Biggins, Gertrude, Washington, D. C.
 Billings, Marion H., Charlotte Hall
 Blackmore, Esther A. (Mrs.), College Park
 Blandford, Mary L., College Park
 Bowman, Emma M., Mt. Airy
 Brashears, Helen H. (Mrs.), Hyattsville
 Bride, Crescent J., Rockville
 Brooks, Helen G., Baltimore
 Brown, Eleanor C., Annapolis
 Brown, Miriam, Centreville
 Bryant, Slater W., Glen Burnie
 Burch, Elizabeth B., Charlotte Hall
 Cantwell, Hammond D., Cambridge
 Christie, Mary E. (Mrs.), Washington, D. C.
 Clagett, Jennie D., Upper Marlboro
 Claxton, Philip S., Greenbelt
 Claytor, Margaret A., Riverdale
 Close, Marion B., Frostburg
 Cole, Helen R. (Mrs.), Silver Spring
 Collier, Ruby, Avoca, N. Y.

Shipley, Florence L., Cumberland
 Shockey, Donald J., Waynesboro, Pa.
 Siegel, Freda C., Baltimore
 Simpson, Frances, Washington, D. C.
 Stealey, Jean E., Baltimore
 Stiles, Catherine E., Rockville
 Stubbs, Charlotte M., Mt. Rainier
 Surosky, Ruth F., Baltimore
 Tapper, Herman A., Baltimore
 Thayer, Mary A., High Point, N. C.
 Thomas, Elaine M., Mt. Rainier
 Thompson, Norma L., Fenwick
 Trader, Richard F., Stockton
 Urquhart, Ann M., Riverdale
 Valle, Michalena M., Baltimore
 Wharton, James H., Baltimore
 White, Charlotte B., Dickerson
 White, Florence J., Poolesville
 Wilkins, Laura A., Pocomoke City
 Williams, Aileen M., Hyattsville
 Wolf, Ann O., Baltimore
 Wroten, Arthur A., Jr., Baltimore
 Young, Barbara K., Mt. Rainier

Conlon, Mary K., Baltimore
 Copes, B. Ella, Silver Spring
 Copes, Grace R., Silver Spring
 Corbett, Ruth, Baltimore
 Crosby, Harriet W., Chevy Chase
 Crossan, Florence G. (Mrs.), Silver Spring
 Cunningham, Hilda S. (Mrs.), Washington, D. C.
 Cunningham, Thomas C., Takoma Park
 Dillon, Mary C. (Mrs.), Washington, D. C.
 Doane, Kenneth R., Greenbelt
 Dungan, Nevis E., Baltimore
 Earle, Mary I., Washington, D. C.
 Ehrmantraut, Doris W., Washington, D. C.
 Emmerich, Sophie N., Hyattsville
 Erickson, J. Alma, Annapolis
 Ericson, Charlotte M., Lanham
 Evans, William B., Glen Burnie
 Eversfield, Catharine M. (Mrs.), College Park
 Faber, Anna Parker (Mrs.), College Heights
 Feddeman, Edna S., Washington, D. C.
 Forsyth, Augusta M., Washington, D. C.
 Fry, Martha K., Bethesda
 Fulgham, Evel W., Washington, D. C.
 Gibson, H. Madeline, Glen Burnie
 Giles, Martha R., Annapolis
 Goodpasture, Esther M., Washington, D. C.
 Granbery, Helen L. (Mrs.), Washington, D. C.

Grove, Edith M., Washington, D. C.
Harris, Elizabeth M. (Mrs.), College Park
Hayes, Lester D., Greenbelt
Healy, Roberta F., Annapolis
Hiatt, Pearl M., Chevy Chase
Hodges, Harvard E., Greenbelt
Joyce, Agnes C., Frostburg
Kaufman, Gee L. (Mrs.), Washington, D. C.
Kenney, Katherine J., Frostburg
King, Ola A., Accident
Kirby, Marion, Takoma Park
Knotts, Dorothy E., Templeville
Kridner, Harrison S., Greenbelt
Kupka, Anna E., Bethesda
Kyle, May T. (Mrs.), Washington, D. C.
Lamborn, Robert L., McDonogh
Lamore, Donald H., Silver Spring
Landon, Margaret B., Sherwood
Lawrence, Thelma D., Bethesda
Lehr, Emily C., Bethesda
Lewis, William C., Jr., Oklahoma City, Okla.
Long, William H., Jr., Greenbelt
Lord, James W., Jr., Ellicott City
Lynch, Elizabeth S., Washington, D. C.
Mangum, Susie A., Washington, D. C.
Martin, Grace W. (Mrs.), Washington, D. C.
Mason, Amy E. L., Washington, D. C.
Matthews, Abigail G. (Mrs.), La Plata
McCall, Mildred L. (Mrs.), Washington, D. C.
McCaw, Frederick S., Edmondston
McGlynn, Rose B., Greenbelt
McKeever, Antoinette D. (Mrs.), Takoma Park
McKenna, Emily B., Bethesda
McNeill, Kathryn L., Takoma Park
Miller, Dorothy A., Hyattsville
Miller, Elna M. (Mrs.), Takoma Park
Mills, Christene, Washington, D. C.
Monroe, Mary E. (Mrs.), Washington, D. C.
Mullendore, Louise C., Washington, D. C.
Mumm, Carl W., Greenbelt
Myers, E. Louise, Hyattsville
Myers, W. Constance, Hyattsville

Barto, John C., Queen Anne
Finch, Nancy A., Chevy Chase

Unclassified

Newman, Jeanette R. (Mrs.), Washington, D. C.
Nichols, Helen I., Greenbelt
Nielsen, Gladys G., Greenbelt
Nigels, Edith C. (Mrs.), College Park
Nordwall, Nellie M., Hyattsville
O'Connor, Mary C., Greenbelt
Pepmeier, Anita, Bethesda
Perkins, John J., Greenbelt
Piozet, Nina C., College Heights
Regan, Ethel M., Mt. Rainier
Regan, Stephen A., Mt. Rainier
Richardson, Anna B. (Mrs.), Bethesda
Richie, Comly B., Greenbelt
Riggin, Albia E., Princess Anne
Roberts, Ethel J., Hughesville
Rockwood, Earl, Silver Spring
Rockwood, Marion (Mrs.), Silver Spring
Rudd, Leah N. (Mrs.), Annapolis
Schaff, Boyd F., Greenbelt
Seaton, Stuart L., Washington Grove
Sims, Olivia K., Rockville
Small, Lafayette G., Takoma Park
Smith, Blair H., Mt. Rainier
Smith, Miriam O. (Mrs.), Bethesda
Sothoron, Julia H., Charlotte Hall
Speicher, Nelle I., Riverdale
Stevens, Margaret T., Sudlersville
Taylor, L. Raymond, Greenbelt
Teunis, Audrey S. (Mrs.), Upper Marlboro
Turner, Edythe M., Rockville
Vaughan, Eleanor J. (Mrs.), Washington, D. C.
Weatherby, Herbert W., Greenbelt
West, Dorothy H., Sligo Park Hills
West, Margery H. (Mrs.), Washington, D. C.
Westerblad, Ruth E. (Mrs.), Darlington
Wilkerson, Roberta T., Malcolm
Willard, Helen L., Poolesville
Wine, Hilda K., Washington, D. C.
Wood, Helen L., Washington, D. C.
Woodman, Lyman L., Greenbelt
Yhnell, Berndt P., Greenbelt
Young, A. Irene, Silver Spring
Young, Herschel, Greenbelt
Zimmerman, Marian A., Washington, D. C.

Sullivan, Mary S., Frostburg
Weld, Ruth, Sandy Spring

VOCATIONAL TEACHER TRAINING COURSES, BALTIMORE

(Department of Industrial Education)

Aaronson, Philip J.
Adkinson, Olney
Amass, Jack R.
Anderson, Charles R.
Askew, Howard D.
Bachmann, Oswald E.
Baer, A. Harris
Baer, Bankard F.
Baker, Allena R.
Barnes, Marie W.
Barnes, May S.
Batt, Helen K.
Baumgardner, Ralph W.
Bem, Alma
Benner, Elisabeth
Blumberg, Gilbert
Bosley, Edgar B. A.
Bowen, Louise M.
Brice, Eleanor V.
Britton, Margaret C.
Buettner, John A., Jr.
Bull, Carl E.
Bullough, Van Ness
Bunce, Edward W.
Burns, Thelma W.
Burton, Basil M.
Byer, Henry L.
Cann, Charles S.
Carroll, Genevieve A.
Carroll, James G.
Childs, W. Melville
Chrest, Frank T.
Clayman, Henry
Clouse, Catherine P.
Clubb, Evelyn M.
Conlon, Mary K.
Cox, John H.
Crane, Amy H.
Crist, Cornelia R.
Cromack, Joseph T.
Cronin, Catherine F.
Davidson, David K.
Degen, LeRoy G.
Deitrich, Elmira H.
Dennis, Evelyn G.
Denowitch, Freda G.
Detz, Pete A.
Dewling, Evelyn E.
Dexter, Edward B.
Dietrich, Mary H.
Downing, Rebecca
Duncan, Lida L.
DuShane, Doris A.

Edwards, Paul C.
Edwards, Walter F.
Elliott, Helen O.
Elliott, R. V.
Ely, James H., Jr.
Emmart, Carey F.
Ercole, Henry A.
Ewing, Margaret T.
Falk, Miriam
Farrow, Blanche S.
Feinberg, Bernard
Fisher, Gilbert C.
Fowler, William R.
Friedman, Isadore
Fristoe, Virginia R.
Gardner, Harry K.
Garmer, William M.
Gehman, Frances E.
Gerber, Ida R.
Gerken, Carl A.
Gilbert, Loren G.
Gilbert, Roland A.
Gill, Francis
Gillan, Andrew S.
Goden, Alan A.
Goeke, Mildred A.
Goldman, Grace M.
Gontrum, Charles H.
Goode, Ruby M.
Gorman, Anne M.
Granek, Abraham
Green, Philip W.
Griefzu, G. Edward
Griffith, Helen C.
Grove, James F.
Gugliuzza, Joseph M.
Gunderloy, Frank C.
Haddaway, Mildred J.
Hall, James L.
Hardy, Earl C.
Harker, Mildred C.
Haugh, Marian
Hausmann, Ida M.
Hawkins, Nannie M.
Hay, Donald B.
Healey, William G., Jr.
Hedrick, Lillian S.
Hedrick, Melvin D.
Heghinian, G. Walter
Hensen, Henry L.
Hentz, Cornelius W.
Herwig, Edward H.
Himmel, Mildred

Hisley, Lillian P.
 Hocheder, Harry P.
 Hoffman, Jennie Z.
 Hohlbein, Lester H.
 Holden, Delma M.
 Hollander, Eleanor
 Hollander, Margaret
 Horn, Robert H.
 Horvath, Kenneth
 Hottes, William
 Huffman, Julia K.
 Hymowitz, Emil W.
 Isabelle, J. Ovide
 Jahn, Elsa F. W.
 Jeschke, Curt A. H.
 Jirsa, Charles
 Johnson, Eldred D.
 Joyce, Bro. Paul
 Kahn, Janice
 Kalb, Merrill B.
 Kaufman, Fred W.
 Keating, Lyda
 Keller, Dorothy V.
 Keller, Melvin
 Kinsey, Allan S.
 Klair, Garmer F.
 Knox, Myra P.
 Koontz, Paul M.
 Kornblatt, Joseph
 Krapkat, Herbert M.
 Krieger, Mildred B.
 Kuehn, Peter
 Laugerman, John B.
 Lawlis, Tilden T.
 Leonhart, Gail A.
 Levin, Sol
 Little, Edward T.
 Loetell, Robert F.
 Lokstein, Henry E.
 Magness, Harriet E.
 Mahaney, William H.
 Maltese, Stephen L.
 Manakee, Edward Y.
 Markley, Cyril H. A.
 Marshall, Mary E.
 Mason, Sarah A.
 Matthaei, Lewis A.
 Mattingly, Nellie B.
 McCarriar, Herbert G.
 McCarriar, Marian H.
 McCauley, Annie C.
 McCollister, M. Gladys
 McDairmant, John
 McGraw, William T.
 Menkel, Edith L.
 Merkle, Clifford C.
 Meyer, Elmer Lee, Jr.
 Moler, Margaret V.

Montgomery, Marie L.
 Morsberger, Mary B.
 Moss, Mary E.
 Muhlenfeld, Louise F.
 Murphy, Ruth C.
 Muth, Mary J.
 Nachlas, Bernard
 Nathanson, David
 Nelson, Clifford L.
 Newcomb, Fred N.
 Nicol, Lindsay
 Norris, Cecil T.
 Ochstein, Sophia
 Oder, Alice M.
 Ogle, Katherine W.
 Ostrander, Montgomery
 Pettit, Burnett A.
 Phillips, LeRoy J.
 Piersol, Charles D., Jr.
 Powell, George C.
 Proctor, James O.
 Provenza, Anna M.
 Raabe, Herbert L.
 Rachanow, Louis
 Randall, Roland E.
 Rankin, George T.
 Reiter, Charles L.
 Reynolds, James P.
 Reynolds, Joseph R.
 Rice, Dorothy T.
 Richards, Ruth
 Rittenhouse, Harold F.
 Rivkin, Leon
 Robinson, Harry L.
 Robinson, Helen S.
 Rock, Charles V.
 Rost, Florence B.
 Ruppel, Alvin G.
 Sachs, Frank N.
 Sadowski, Frank E.
 Saunders, Leslie M.
 Schmidt, Robert F.
 Schrieber, Maurice H.
 Schultz, Melvin J.
 Schwarzmamm, George A.
 Scott, Roy R.
 Seitz, Doreen M.
 Selsky, S. Samuel
 Sendelbach, John F.
 Sewell, Lillian P.
 Shalowitz, Annette
 Shepherd, Clarence M.
 Sheppard, Ethel C.
 Shepperd, Anna G.
 Shreve, Edward
 Slade, Margaret E.
 Smink, Douglas I.
 Smith, Francis J.

Smith, Harold D.
 Sokolsky, Henry
 Speer, Dorothy
 Stach, James
 Stewart, Margaret L.
 Stinnett, J. Bernard
 Street, J. Heuisler
 Stubbs, Ethel H.
 Stull, Robert B.
 Swisher, Elizabeth B.
 Tasca, Mary
 Temple, John F.
 Thomas, Eloise
 Townsend, Howard E.
 Tustin, Howard D.
 Valle, Joseph A.
 Valle, Philip J.
 Vogelhut, Beatrice

Walker, Julia A.
 Waltham, W. Alan
 Ward, Fred J.
 Ward, Mary C.
 Washburn, Mary A.
 Weiland, Richard W.
 West, Elmer P.
 Whipple, Stanley R.
 White, Clinton E. W.
 White, Walter S.
 Wilenzick, Jerome J.
 Williams, L. Leighton
 Woolf, Sam
 Wroten, Arthur A.
 Wygant, Alice W.
 Young, Rita E.
 Zafren, Miriam

VOCATIONAL TEACHER TRAINING COURSES, WASHINGTON, D. C. (Department of Industrial Education)

Alvather, Winifred
 Anderson, Bernhard T.
 Anderson, Joseph A.
 Barnfather, Martin
 Beall, Pauline T.
 Bland, Annie E.
 Blundon, Dallas K.
 Blundon, Earl A.
 Boote, Howard S.
 Bowden, Bernice S.
 Brousseau, Lillian G.
 Chism, Morgan A.
 Clark, Della L.
 Clark, Harold A.
 Cleaveland, Herbert
 Cook, Edgar I.
 Cook, Gertrude
 Cooney, Edward L.
 Cowden, Cornelia G.
 Crankshaw, Harold G.
 Davis, Nellie S.
 Drissel, Winfield L.
 Elson, Hulda M.
 Eusey, Otho F.
 Faust, Bernard B.
 Fleming, Euclid S.
 Francis, Louise E.

Gettwals, Gene A.
 Harbour, Hadley S.
 Hartley, Edgar R. C.
 Hasbach, Michael F.
 Heironimus, Clark W. M.
 Hennick, Donald
 Holzer, Emma A. F.
 House, Matthew J.
 Keirn, Etta Lee
 Magee, John E.
 Marshall, Emma B.
 McPherson, Jessie F.
 Milans, Everett D.
 Misiek, Eleanor N.
 Moore, Alice M.
 Murray, Lucile W.
 Nathanson, Albert
 Parkman, Theodore G.
 Scanlon, Agnes M.
 Tate, Mary B.
 Theofilos, Samuel M.
 Valade, J. Adrian
 Wheeler, Elwood L.
 White, Robert A.
 Williams, Robert S., Jr.
 Wondrack, Walter J.
 Wood, Louis L.

COLLEGE OF ENGINEERING

Senior Class

Ashmun, Van S., Chattanooga, Tenn.
 Bartoo, Donald G., Hyattsville
 Bryant, William C., Takoma Park
 Chappelle, James A., Jr., Washington,
 D. C.

Corbin, Maurice E., Baltimore
 Davis, William B., Jr., Washington, D. C.
 Elvove, Elies, Washington, D. C.
 Essex, Henry A., Washington, D. C.
 Etkind, Irving J., New Haven, Conn.

Forrester, James L., Berwyn
 Franke, Harold H., Washington, D. C.
 Gottlieb, Robert, Washington, D. C.
 Hall, Herbert P., Washington, D. C.
 Harvey, Cecil L., Washington, D. C.
 Holbrook, Charles C., College Park
 Horne, John F., Chevy Chase
 Janes, Henry W., Anacostia, D. C.
 Jones, Stephen H., Leonardtown
 Krafft, Robert E., Washington, D. C.
 Lasswell, Philip M., Takoma Park
 Lynham, John C., Hyattsville
 McClenon, Donald, Takoma Park
 McGill, Lloyd H. R., Thurmont
 Mitchell, David H., Washington, D. C.
 Mueller, Eugene F., Jr., Washington, D. C.

Junior Class

Bamman, Richard K., Coltons
 Bebb, Edward K., Chevy Chase
 Booze, William C., Mt. Washington
 Brashears, Richard S., Washington, D. C.
 Budkoff, Nicholas A., Baltimore
 Carpenter, Byron L., Washington, D. C.
 Carroll, Richard W., Philadelphia, Pa.
 Chilcoat, Ralph L., Washington D. C.
 Clarke, Joseph A., Jessup
 Coleman, Thomas L., Washington, D. C.
 Collins, James E., Crisfield
 Cooke, Alfred A., Hyattsville
 Corkran, William H., Trappe
 Cox, Newton J., Baltimore
 Cranford, Leonard C., Washington, D. C.
 Davidson, Donald C., Washington, D. C.
 DeArney, John J., Windber, Pa.
 Farrall, John A., Washington, D. C.
 Fletcher, Arthur W., Linthicum Heights
 Folk, William C., Washington, D. C.
 Gallagher, Harry G., Relay
 Gerber, Sigmund I., Baltimore
 Gessford, Richard L., Mt. Rainier
 Greenwood, Orville W., Brentwood
 Grogan, Leslie S., Riverdale
 Hennighausen, Louis K., Jr., Baltimore
 Herbert, Wilbur M., Baltimore
 Herman, Harold, Washington, D. C.
 Hewitt, Frederic M., Baltimore
 Kaminski, Joseph, Baltimore
 Kestler, Paul G., Baltimore
 Kimball, Henry F., Washington, D. C.
 Kinney, Robert W., Washington, D. C.
 Knust, Herman R., Jessup
 Lanham, Paul T., Lanham
 Lanigan, James M., Washington, D. C.

Muncks, John D., Baltimore
 Perkins, Fred W., Chevy Chase
 Phillips, Irving Q., Washington, D. C.
 Robertson, Elliott B., Bethesda
 Scott, Elgin W., Jr., Washington, D. C.
 Seeley, George E., Baltimore
 Smith, John P., Jr., Washington, D. C.
 Stabler, Sydney S., Hyattsville
 Stevens, John W., Takoma Park
 Thompson, T. Manning, Washington, D. C.
 Wettje, Robert H., Riverdale
 Wharton, Thomas P., College Park
 Willett, LeRoy G., Washington, D. C.
 Witt, Emmitt C., Washington, D. C.
 Yourtee, Leon R., Jr., Brownsville

Lapoint, George M., Baltimore
 Lee, Gin Hon, Washington, D. C.
 LeMat, Lee E., Washington, D. C.
 Lodge, Robert J., Baltimore
 Lozupone, Frank P., Chevy Chase
 Marzolf, Joseph M., Deale
 Meyer, Carl W., Baltimore
 Moran, Joseph T., Westernport
 Morris, Francis C., Washington, D. C.
 Northrop, Sanford E., Hagerstown
 O'Connell, Daniel T., Washington, D. C.
 Odell, Charles N., Ellicott City
 O'Farrell, Rufus E., Jr., Washington, D. C.
 Otten, Leonard J., Jr., Hamilton
 Parsons, Charles R., Washington, D. C.
 Poole, Lewis A., Annapolis
 Purdum, William D., Glyndon
 Rector, Ralph L., Washington, D. C.
 Riley, Thomas W., Germantown
 Russell, Joseph S., Maddox
 Shaw, Bowen W., Silver Spring
 Shipe, John K., Washington, D. C.
 Simms, Harvey C., Washington, D. C.
 Slicer, William A., Gaithersburg
 Stedman, Henry T., Baltimore
 Steiner, Warren E., Washington, D. C.
 Storrs, Gardner H., Linthicum Heights
 Strausbaugh, Donn P., Chevy Chase
 Warner, Robert E., Baltimore
 Watkins, William H., Washington, D. C.
 Weeks, Loraine H., Mt. Lake Park
 Wilson, J. Gibson, Jr., Washington, D. C.
 Wilson, Robert M., Washington, D. C.
 Yocum, Wilbur F., Chevy Chase
 Young, Charles M., Washington, D. C.

Sophomore Class

Anderson, Philip R., Bay Ridge
 Baldwin, Robert D., Riverdale
 Bauernschmidt, John N., Baltimore
 Bell, Roger H., Jr., Baltimore
 Bengoechea, Adam, Chevy Chase
 Blazek, Frank J., Baltimore
 Bollinger, George W., Elkton
 Bralove, William, Jr., Washington, D. C.
 Brand, Robert A., Jr., Washington, D. C.
 Brinson, John R., Brentwood
 Brockman, Roy C., Baltimore
 Brookes, Thomas R., Jr., Bel Air
 Brucker, Fredric L., Jr., Sparrows Point
 Buhl, Victor C., Baltimore
 Camardi, Nicholas J., Washington, D. C.
 Carter, John M., Baltimore
 Clark, John W., Jr., Hancock
 Clark, Thomas C., Hanover
 Cochrane, Robert B., Jr., Baltimore
 Condon, Robert D., Baltimore
 Cook, Robert P., Washington, D. C.
 Crockett, David T., Jr., Hagerstown
 Cromwell, Howard L., Washington, D. C.
 Crump, Ralph F., Frostburg
 Custer, John D., Washington, D. C.
 Damuth, Donald R., Baltimore
 Darling, William M., Washington, D. C.
 Daudt, Louis R., Wilmington, Del.
 Davis, Warren P., Washington, D. C.
 Devlin, Joseph J., Catonsville
 Dix, Francis, Washington, D. C.
 Dorr, George W., Washington, D. C.
 Downs, Hugh G., Jr., Hagerstown
 Edgerton, James F., Washington, D. C.
 Evans, Kenneth J., Takoma Park
 Farley, Belmont G., Washington, D. C.
 Filbert, Howard C., Jr., Baltimore
 Finton, James R., Washington, D. C.
 Fisher, David, Baltimore
 Fishkin, Joseph, Washington, D. C.
 Flanagan, Francis J., Fort G. G. Meade
 Ford, Harry S., Silver Spring
 Fox, Gabriel, Washington, D. C.
 Freeze, Paul D., Thurmont
 Gannon, William F., Westernport
 Glaze, Francis W., Jr., Hyattsville
 Graham, William M., Baltimore
 Groves, Robert A., Jr., Woodlawn
 Haddaway, Vaden J., Woodlawn
 Hall, Lacy, Bennings, D. C.
 Hall, Thomas A., Washington, D. C.
 Harmon, Robert B., Takoma Park
 Haskin, Lawrence H., Takoma Park
 Hatchett, Samuel E., Washington, D. C.
 Hawkins, Edward C., Catonsville
 Heil, George J., Jr., Baltimore

Hink, Henry M., Annapolis Junction
 Hitch, Thomas E., Washington, D. C.
 Hodges, Raymond L., St. Inigoes
 Hodgins, Lawrence J., Jr., College Park
 Hopkins, Page F., Silver Spring
 Hughes, Thomas A., Washington, D. C.
 Hutton, Junius O., Chevy Chase
 Imus, Alden E., Jr., Mt. Rainier
 Jensen, Willard C., Washington, D. C.
 Jones, Nelson R., Washington, D. C.
 Keller, Holly M., Bethesda
 Kinder, Gilbert E., Millersville
 Klawans, Bernard, Annapolis
 Klug, Howard J., Washington, D. C.
 Lane, John E., Washington, D. C.
 Laughhead, Robert W., Bethesda
 Leland, C. Ralph, Jr., Baltimore
 Lumsden, Milton G., Baltimore
 Mahrer, M. Elizabeth, Wilmington, Dela.
 Maidens, William A., Washington, D. C.
 Males, Irwin J., Washington, D. C.
 Maloney, William F., Jr., Baltimore
 Marzolf, John C., Deale
 Mattingly, Robert D., Riverdale
 McCusker, Richard W., Baltimore
 Meeks, George E., Washington, D. C.
 Mehring, Arthur C., Seat Pleasant
 Miller, Emanuel Z., Baltimore
 Moore, Harry H., Washington, D. C.
 Mulitz, Milton M., Washington, D. C.
 Oberle, William F., Dundalk
 Onnen, Donald S., Baltimore
 Oswald, Huyette B., College Park
 Peters, Roy F., Washington, D. C.
 Pfeiffer, Arthur M., Jr., Baltimore
 Piozet, Charles F., College Heights
 Plant, Edward F., Lanham
 Powell, John M., Dorsey
 Pyles, George V., Anacostia, D. C.
 Randall, Joseph H., Boyds
 Rausch, Charles A., Jr., Baltimore
 Rawley, Weldon N., Jr., Hyattsville
 Reckner, Jack V., Severna Park
 Rimmer, William, Hyattsville
 Ruhl, Robert C., Baltimore
 Saltzman, Ernest C., Washington, D. C.
 Sexton, M. Jordan, Baltimore
 Shivoder, Charles A., Jr., Fullerton
 Siebeneichen, Paul O., Washington, D. C.
 Sloan, James D., Cumberland
 Smith, Stanley H., Jr., Takoma Park
 Staines, Powell R., Jr., Severna Park
 Stevens, John F., III, Annapolis
 Stewart, Carl H., Jr., Brooklyn
 Streep, Samuel C., Takoma Park
 Suter, Walter H., Jr., Baltimore

Swank, Lawrence E., Washington, D. C.
 Thompson, Jack H., Chevy Chase
 Timberlake, Turner G., Magnolia
 Tyson, Clifford W., Takoma Park
 Watkins, Frank G., Baltimore
 Watson, Thomas E., Jr., Washington, D. C.
 Weathersbee, Frank B., Washington, D. C.

Westfall, Robert R., Hyattsville
 Wilson, Henry D., Takoma Park
 Wilson, Lawrence L., Baltimore
 Witherspoon, Fred L., Jr., Silver Spring
 Worden, John F., Berwyn
 Wynn, Harry T., Brentwood

Freshman Class

Ackerman, John H., Baltimore
 Agress, Joseph, Cumberland
 Aiken, Albert S., Landover
 Alley, Millard F., Washington, D. C.
 Altman, Edward R., Washington, D. C.
 Ames, William H., Washington, D. C.
 Anderson, Bruce S., Hyattsville
 Anderson, Julian B., Laurel
 Arentson, Robert M., Silver Spring
 Augustine, Francis W., Landover
 Bader, Edwin A., Towson
 Baker, Michael, San Juan, Puerto Rico
 Baker, Thomas, San Juan, Puerto Rico
 Barrett Jack R., Catonsville
 Bean, Tarleton, S., Jr., Silver Spring
 Beasley, Jack P., Burtonsville
 Beaumont, Charles R., Jr., Silver Spring
 Becker, Clarence E., Baltimore
 Bell, Forrest H., Waterloo
 Berg, Hyman A., Baltimore
 Berlin, Joseph G., Washington, D. C.
 Betts, Allen W., Chevy Chase
 Biggs, Anson W., Washington, D. C.
 Bilbrey, Joseph H., Takoma Park
 Billhimer, Edwin S., Washington, D. C.
 Bittinger, Francis G., Washington, D. C.
 Blondheim, Leonard, Baltimore
 Blood, Gordon F., Washington, D. C.
 Boyer, Edward L., Alexandria, Va.
 Boyer, Rodney L., Takoma Park
 Bransdorf, Richard R., Washington, D. C.
 Bridge, Richard, Takoma Park
 Brown, Herbert B., Ellicott City
 Bryan, James E., Jr., Queenstown
 Buck, Sidney E., Chevy Chase
 Burlin, Ralph M., Port Deposit
 Burnett, Pelham R., Baltimore
 Carpenter, Frank G., Chevy Chase
 Carter, Arthur M., Jr., Annapolis
 Chapin, Richard B., Silver Spring
 Chirieleison, Joseph P., Washington, D. C.
 Clancy, W. Joseph, Washington, D. C.
 Clemmer, Shelton R., Chevy Chase
 Coates, Charles P., Berlin
 Coffman, Paul M., Bethesda
 Cohen, Melvin, Baltimore
 Collison, Frederic E., Takoma Park
 Cordyack, John E., Baltimore

Corson, Henry J., Orelan, Pa.
 Councilman, Jack A., Cambridge
 Crawford, William K., Laurel
 Cronin, Randall C., Joppa
 Crouch, Charles T., Church Hill
 Curtin, John F., Laurel
 Daniels, Edward L., Baltimore
 Davis, Donald D., Hyattsville
 Davis, Ernest T., Jr., Upper Marlboro
 Day, Rodney R., Bethesda
 DeMarr, Creighton O., Berwyn
 Deming, Andrew S., Washington, D. C.
 Dickinson, John F., Bethesda
 Douglas, Bruce A., Baltimore
 Dow, Neal, Jr., Washington, D. C.
 DuBose, John E., Richmond, Va.
 Earp, Harold E., Jr., Washington, D. C.
 Eberhart, Jack M., Baltimore
 Edwards, Paul M., Washington, D. C.
 Ellsworth, William M., Washington, D. C.
 Emrey, Jay C., Colara
 Emrich, Howard F., Jr., Baltimore
 Falck, David A., Baltimore
 Fanning, James A., Thousand Island Park, N. Y.
 Ferrar, Charles W., Lanham
 Forsythe, Dixon L., Baltimore
 Foss, Kenneth E., Relay
 Freemire, Elmer L., Takoma Park
 Fufeld, Robert D., Washington, D. C.
 Gassinger, Henry A., Baltimore
 Gearhart, Robert A., Alexandria, Va.
 Giles, Nathan L., Washington, D. C.
 Gillett, Thornton R., Washington, D. C.
 Gingell, Vernon R., Fairhaven
 Glasgow, Raymond J., Hyattsville
 Godwin, Gurney L., Baltimore
 Golomb, Jerome W., Baltimore
 Goode, Adrian F., Westbury, N. Y.
 Gordon, Ian, Relay
 Gransee, Vern H., Linthicum Heights
 Greene, Robert E., Mt. Rainier
 Griggs, Louis C., Cumberland
 Grimes, Carl C., Jr., Capitol Heights
 Hahn, Madison N., Annapolis Junction
 Hall, Robert D., Washington, D. C.
 Hare, William H., Chevy Chase
 Hargreaves, Jack A., Randallstown

Hathaway, Norman E., Hyattsville
 Haywood, Stuart T., Westernport
 Hege, Jerry C., Washington, D. C.
 Hessler, Bernard P., Jr., Washington, D. C.
 Hill, Frederick L., Washington, D. C.
 Hollomon, J. Edward, Catonsville
 Holloway, John J., Silver Spring
 Holmes, Gordon G., University Park
 Hoskinson, Jack W., Washington, D. C.
 Huggins, Lloyd G., Fort Meade
 Hughes, Vincen J., Jr., Baltimore
 Hume, William H., Fort George Meade
 Hunt, Max V. K., Wysox, Pa.
 Hurlock, Ellsworth A., Jr., Baltimore
 Hutchinson, John L., Washington, D. C.
 Jones, Fletcher H., Jr., Washington, D. C.
 Jones, Myron W., Hyattsville
 Joep, Clifford H., Washington, D. C.
 Kaiser, Herman F., Washington, D. C.
 Karr, Roger W., Bethesda
 Keating, Lloyd A., Washington, D. C.
 King, Arthur R., Silver Spring
 King, William R., Takoma Park
 Kirchner, Francis C., Churchton
 Kirk, Andrew, Jr., Washington, D. C.
 Kratz, John H., Baltimore
 Kursch, Robert F., Washington, D. C.
 Kurz, Philip E., Takoma Park
 Lambert, John L., Baltimore
 Lasher, Arthur E., Silver Spring
 Lee, Robert S. W., New York City, N. Y.
 Lewis, Bernard M., Washington, D. C.
 Lewis, George W., Jr., Chevy Chase
 Leyba, Joseph M., Riverdale
 Liebman, Leonard, Washington, D. C.
 Long, Leroy, Jr., Princess Anne
 Lopata, John, Baltimore
 Magruder, Donald R., Washington, D. C.
 Malcolm, James E., Silver Spring
 Markline, Donald D., White Hall
 Marvin, Donald M., Urbana, Ill.
 Maxcy, Donald C., Washington, D. C.
 McClay, Hugh T., Hyattsville
 McFall, Russell W., Washington, D. C.
 McKeever, Robert L., Silver Spring
 McKinstry, Vernon L., Hyattsville
 McNally, Daniel M., Washington, D. C.
 Meredith, Gibson G., Centreville
 Miller, James H., Washington, D. C.
 Mitchell, John T., Jr., Washington, D. C.
 Monson, Franklin J., Pasadena
 Moore, Henry W., Washington, D. C.
 Morin, Herbert L., Baltimore
 Moss, Howard M., Tokyo, Japan
 Mulligan, Walter F., Jr., Berwyn
 Murphy, Donald F., Baltimore
 Nauss, Allen H., Baltimore
 Nichols, Raymond, Baltimore

Niedermair, William I., Washington, D. C.
 Nitzel, Henry D., Baltimore
 Norris, John H., Baltimore
 Odell, Marshall D., Ellicott City
 Owens, Benjamin M., Landover
 Parker, Charles E., Washington, D. C.
 Parlett, Robert U., Jr., Hyattsville
 Patch, Richard L., Washington, D. C.
 Peterson, Ernest H., Billingsley
 Pittiglio, Clayton L., Washington, D. C.
 Plank, Donald M., Garrett Park
 Platshon, Alvin, Washington, D. C.
 Poole, Victor H., Govans
 Pope, Llewellyn N., Washington, D. C.
 Price, Edward H., Frostburg
 Rakestraw, Dale L., Baltimore
 Raymond, Charles B., Bethesda
 Reichert, F. Arnold, Baltimore
 Reynolds, George E., Jr., Washington, D. C.
 Rhine, Karl W., Washington, D. C.
 Rife, John W., Baltimore
 Rinehart, Elijah, Jr., Relay
 Rives, Thomas M., Washington, D. C.
 Roberts, Floyd B., Baltimore
 Robertson, James A., Annapolis
 Robertson, Samuel T., Bethesda
 Rodgers, Kelly, Washington, D. C.
 Roseman, Morris, Baltimore
 Rosenberg, Norman H., Baltimore
 Roth, C. Frederick, Cumberland
 Russell, Robert W., Frederick
 Schaefer, Charles F. H., Hamilton
 Schlenoff, Maurice, Baltimore
 Schmidt, Earl W., Catonsville
 Schmidt, Francis R., Washington, D. C.
 Schumacher, Irwin J., Washington, D. C.
 Shaw, David, College Park
 Sherwood, John H., Baltimore
 Showacre, Harold G., Baltimore
 Shulman, Fred, Washington, D. C.
 Sirkis, Joseph A., Washington, D. C.
 Smith, Earl W., Baltimore
 Smith, Paul J., Silver Spring
 Smith, Robert H., Silver Spring
 Southgate, Howard F., Takoma Park
 Sparhawk, William N., Jr., Washington, D. C.
 Steed, Leon S., Bethesda
 Steger, Joseph M., Hyattsville
 Stetson, Richard, Chevy Chase
 Stewart, Jack H., Silver Spring
 Strack, Francis L., Washington, D. C.
 Sullivan, William S., Jr., Baltimore
 Sunier, Emile H., Washington, D. C.
 Swann, William H., Faulkner
 Talbott, Edward B., Clarksville
 Tennyson, Franklin L., Washington, D. C.

Thompson, George V., Oak Grove, Va.
 Tierney, Louis M., Bennings, D. C.
 Tilley, William R., Bel Air
 Trice, Paul C., Hurlock
 Troutman, Frank L., Washington, D. C.
 Tryon, Max., Washington, D. C.
 Tyler, Leon W., Honga
 Underwood, Vahl E., Washington, D. C.
 Valaer, Charles W., Washington, D. C.
 Valentine, Arthur H., Dundalk
 Vanous, Kenneth O., Annapolis
 Walker, Elmer E., Hyattsville
 Walker, Hobart T., Jr., Washington, D. C.

Walker, John S., Silver Spring
 Wannall, George L., North Beach
 Warehime, Norwood R., Baltimore
 Webster, Edward, Washington, D. C.
 White, Roland G., Jr., Washington, D. C.
 Wick, Donald H., Hyattsville
 Williams, Garland B., Jr., Thurmont
 Williams, John W., Salisbury
 Wilson, William S., Brentwood
 Witkowski, Thomas T., Baltimore
 Wolf, Seymour D., South Fallsburg, N. Y.
 Wood, Robert E., Catonsville
 Young, Willis H., Jr., Riverdale

Part Time

Garrett, Thomas J., Jr., Washington, D. C.
 Hutton, Joel W., Kensington

McCleskey, Benjamin C., College Park

Unclassified

McKendree, Joseph H., Philadelphia, Pa.

GRADUATE SCHOOL

Professional Schools, Baltimore

Allen, Benjamin F., Baltimore
 Beck, Frances F., Baltimore
 Bellman, Frank A., Baltimore
 Cross, John M., Little Falls, N. J.
 DeDominicis, Amelia C., Baltimore
 Dittrich, Theodore T., Baltimore
 Dunker, Melvin F. W., Baltimore
 Ellis, Fred W., Heath Springs, S. C.
 Enten, Harry, Baltimore
 Foster, Carroll P., Baltimore
 Gakenheimer, Walter C., Catonsville
 Glickman, Shirley M., Baltimore
 Hamlin, Kenneth E., Jr., Baltimore
 Heyman, Bernice, Baltimore
 Hiatt, Edwin P., Wilmington, Ohio
 Jarowski, Charles, Baltimore
 Karel, Leonard, Baltimore
 Kelley, Gordon W., Baltimore

Kennedy, George H., Baltimore
 Kunkel, Anne M., Pinehurst
 Levin, Nathan, Baltimore
 McGinity, Francis R., Baltimore
 McNamara, Bernard P., Baltimore
 Monke, John V., Litchfield, Ill.
 Pinschmidt, Norman W., Lakewood, Ohio
 Purdum, William A., Baltimore
 Raudonis, John A., Baltimore
 Ruddy, A. Wayne, Auburn, Neb.
 Sussman, Bernard, Baltimore
 Thompson, Raymond K., Riverdale
 Thompson, Robert E., Waubay, S. Dak.
 Wachsmann, Irvin L., Baltimore
 Warner, Francis J., Baltimore
 Youch, Charles A., Baltimore
 Zenitz, Bernard L., Baltimore

Vocational Teacher Training Courses, Baltimore

Acree, Samuel
 Braun, Thomas D.
 DeCesare, Nicholas R.
 Dick, Arthur A.
 Dudderar, Charles W.
 Grimes, John J.
 Gross, Charles R.
 Hack, Alfred
 Haefner, William F.
 Heylmun, Stanley L.
 Hirsh, Mildred B.
 Hoffacker, George W.
 Hubbard, Arthur M.
 Lane, Donald F.
 Letzer, Joseph H.
 Longley, Edward L.

Lund, Gerald L.
 Marx, Ernest B.
 Meyer, Arthur A.
 Myrick, Floyd A.
 Neilson, Julia M.
 Reed, Edward D.
 Reid, James L.
 Schubert, Florence H.
 Scott, Charles E. P.
 Smith, Donald R.
 Smith, Robert L.
 Waltham, Thyra C.
 Watkins, Robert S.
 Westerberg, G. Bernard
 Wheeler, Jean B.
 Zieffe, Howard E.

College Park

Aderholdt, Marcus L., Jr., Lexington, N. C.
 Akeley, Robert V., Washington, D. C.
 Alexander, Taylor R., Hope, Ark.
 Allard, Howard F., Arlington, Va.
 Allen, J. Frances, Radford, Va.
 Allison, Herbert M., Hyattsville
 Alperstein, Reuben R., Baltimore
 Appler, Helen I., Washington, D. C.
 Archer, Louise V., Berwyn
 Armstrong, William M., Greenbelt
 Ash, Willard O., Cumberland
 Atkin, Maurice D., Washington, D. C.
 Bachman, Irvin, Baltimore
 Backettoss, Ross E., Jr., Washington, D. C.
 Backus, Lucile M., Silver Spring
 Barnett, Robert E., Washington, D. C.
 Barringer, Margaret E., Washington, D. C.
 Bartilson, Thomas H., University Park
 Bartlett, Helen R., Centerville
 Barton, Louis J., Hart, Mich.
 Basil, Margaret L., Annapolis
 Beck, Ethel, Baltimore
 Beck, Sylvan E., Baltimore
 Beeler, Emerson C., Washington, D. C.
 Bellows, John M., Jr., Maynard, Mass.
 Benton, Charles L., Jr., Linthicum Heights
 Berman, David Z., Washington, D. C.
 Bickley, William E., Jr., Martel, Tenn.
 Billings, Samuel C., Silver Spring
 Boote, Howard S., Greenbelt
 Bower, Francis M., Mt. Rainier
 Bowers, John L., Troy, Texas
 Braungart, Dale C., Washington, D. C.
 Brechbill, Edith L., College Park
 Bredekamp, Marriott W., Silver Spring
 Brenner, Abner, Washington, D. C.
 Brewer, Charles M., Hyattsville
 Bright, Anna G., Washington, D. C.
 Brooks, Paul S., Buckhannon, W. Va.
 Brooks, Vernon L., Washington, D. C.
 Brown, James M., Baltimore
 Bryan, Samuel, Arlington, Va.
 Burdette, Roger F., College Park
 Burgess, Lionel, Ellicott City
 Burhoe, Alice, Takoma Park
 Burpeau, Caroline F., New York, N. Y.
 Campbell, Marjorie Haines, (Mrs.), Washington, D. C.
 Carhart, Homer W., Santiago, Chile
 Carrington, Juliet H., (Mrs.), Washington, D. C.
 Carroll, Floyd D., Bostwick, Nebr.
 Carter, Edward P., College Park
 Carver, Anne E., Perryville
 Chapman, Aurelius F., Marietta, Ga.

Citrin, Estelle, Brooklyn, N. Y.
 Clark, Austin B. J., Washington, D. C.
 Clark, Ellen N., Silver Spring
 Clark, Ralph E., Dundalk
 Connelly, A. Louise, Washington, D. C.
 Conningham, Barbara J., Calvert Hills
 Converse, Henry T., Jr., Beltsville
 Cotton, John, Takoma Park
 Cowgill, William H., Hyattsville
 Cramer, Bessie Wood, (Mrs.), Washington, D. C.
 Cramer, William S., York, Pa.
 Creitz, E. Carroll, Washington, D. C.
 Cron, Lawrence E., Alamo, Texas
 Crosby, Muriel E., Washington, D. C.
 Culton, Thomas G., Parkville, Ky.
 Curtis, Arthur H., College Heights
 Custer, Jonathan H., Stoyestown, Pa.
 Custis, William K., Riverdale
 Cutler, Dorothy M., Silver Spring
 Daly, Rex F., Delta, Utah
 Davis, Alma E., Takoma Park
 Davis, Raymond, Jr., Washington, D. C.
 Dawson, Roy C., Washington, D. C.
 Denues, A. R. T., Severna Park
 DeVolt, Harold M., College Park
 Dittmar, Gordon F., Baltimore
 Dixon, Paul J., Conway, N. H.
 Donnally, Bessie Stearnes, (Mrs.), Washington, D. C.
 Douglas, James R., Lafayette, Ind.
 Dugan, Raymond, Bethesda
 Duncan, Fred W., Bagdad, Ky.
 Emshwiller, Susie B., Washington, D. C.
 Ernest, Lois E., Kensington
 Ervin, Guy, Jr., Falls Church, Va.
 Evans, F. Dean, Washington, D. C.
 Ewbank, Walter J., Washington, D. C.
 Finkbinder, Roberta E., (Mrs.), Baltimore
 Fisher, Herbert H., Greenbelt
 Fleming, Mamie E., Rockville
 Florestano, Herbert J., Annapolis
 Forman, Sylvan E., Baltimore
 Foster, M. Harriet, Washington, D. C.
 Fowble, Albert W., Glyndon
 Fowler, Arthur L., Washington, D. C.
 Fox, William W., Salisbury
 Franklin, Mary T., Hyattsville
 Freeman, Andrew F., Washington, D. C.
 Friedman, Emanuel, New York, N. Y.
 Frischknecht, Carl, Logan, Utah
 Frush, Harriet L., Pella, Iowa
 Fulton, George P., Washington, D. C.
 Gattis, Reid W., Washington, D. C.
 Gay, John R., Washington, D. C.
 Gayhart, Harold E., Beltsville

Gibson, Margaret H., Washington, D. C.
 Gilman, William H., Hyattsville
 Glasgow, Augustus R., Jr., Hyattsville
 Godfrey, Albert B., Berwyn
 Goldberg, Charles, Brooklyn, N. Y.
 Golden, Lex B., Washington, D. C.
 Goldsmith, John S., Allen
 Graham, James G., Washington, D. C.
 Griffin, Lucille H., Washington, D. C.
 Griffin, M. Virginia, Baltimore
 Grober, Samuel, New York, N. Y.
 Groschke, Albert C., Erie, Pa.
 Guest, Lester P., Medford, Mass.
 Guill, John H., Jr., Washington, D. C.
 Gullett, Lydia M., Baltimore
 Hackney, J. Carlyle, Greensboro, N. C.
 Haenni, Edward O., Takoma Park
 Hall, Ruth B., (Mrs.), College Heights
 Hall, Thomas W., Bel Air
 Haller, Harrison S., Washington, D. C.
 Hammond, John C., Silver Spring
 Hanna, William M., Baltimore
 Harcum, Bettie, Salisbury
 Hardell, Nellie G., (Mrs.), Washington, D. C.
 Harkins, Charles E., Annapolis
 Hartman, Jack D., Columbia, S. Dak.
 Harwood, Sprigg, Baltimore
 Hawse, Doris H., Baltimore
 Hayes, Earl T., Mullan, Idaho
 Heagy, Albert B., College Heights
 Hearn, Mildred, Washington, D. C.
 Heinze, Peter H., Kahoka, Mo.
 Herstein, Cecelia, Baltimore
 Hess, Carl W., Amana, Iowa
 Hickman, Mildred M., Washington, D. C.
 Highby, William I., Albert Lea, Minn.
 Hill, Carl R., Washington, D. C.
 Hinton, Jessie D., College Park
 Hipp, Norbert J., Washington, D. C.
 Hitz, C. W., Fortescue, Mo.
 Hoadley, Alfred D., College Park
 Holean, John M., Maddox
 Holly, David C., Halethorpe
 Holmes, George K., Washington, D. C.
 Hormats, Saul, Baltimore
 Howard, Addie James, (Mrs.), Hyattsville
 Huffman, Roy E., Bozeman, Mont.
 Humelsine, Carlisle H., Hagerstown
 Hurlbut, Lucille A., Omaha, Nebr.
 Hyson, Charles D., Hampstead
 Iszak, John A., Halethorpe
 Jackson, Frank H., Chevy Chase
 Jansen, Eugene F., Takoma Park
 Jarrell, Roberta M., Berwyn
 Jarrell, Temple R., Berwyn
 Jeffers, Walter F., Berwyn
 Jenkins, Blanche L., Frostburg

Johnson, Raymond H., Takoma Park
 Johnson, Walter H., Dell Rapids, S. Dak.
 Jones, Audrey S., Washington, D. C.
 Jones, Robert E., Springfield, Ohio
 Jump, Margaret D., Queen Anne
 Kalousek, George L., Washington, D. C.
 Kaminsky, Daniel, New York, N. Y.
 Kapiloff, Leonard, Baltimore
 Kelley, Carl W., Durham, N. C.
 Kelly, George B., Jr., Washington, D. C.
 Kershner, Alan M., Emmitsburg
 Kirshbaum, Amiel, Washington, D. C.
 Knowlton, John W., Bethesda
 Knox, Louis P., Jr., Clinton
 Kosar, William F., Greenbelt
 Kraemer, Leonard S., Baltimore
 Kramer, Amihud, Baltimore
 Kraybill, Herman F., Marietta, Pa.
 Kuhn, Albin O., Woodbine
 Kurtz, Floyd E., Washington, D. C.
 Lakin, Hubert W., Silver Spring
 Lamberton, Bernice Grienes, (Mrs.), Washington, D. C.
 Lane, Jack F., Dallas, Texas
 Lanham, William B., Jr., College Park
 Lann, Joseph S., Washington, D. C.
 Lawall, Willard M., Washington, D. C.
 Leavenworth, William C., Crawfordsville, Ind.
 Lee, Charles F., Takoma Park
 Leed, Russell E., Denver, Pa.
 Lehmann, Theodore S., Ellicott City
 Leighty, Raymond V., College Park
 Levin, Irvin, Baltimore
 Levine, Melvin L., Ames, Iowa
 Levinsky, Daniel J., Washington, D. C.
 Lewandowski, Thaddeus, Brooklyn, N. Y.
 Libber, Theodore, Washington, D. C.
 Littman, Louis, Baltimore
 Longley, Raymond I., Jr., Storrs, Conn.
 Lott, Oscar C., Washington, D. C.
 Love, Solomon, Washington, D. C.
 Lovell, Frank B., Crownsville
 Lowe, Charles S., Takoma Park
 Lowry, Ruth V., Baltimore
 Loyd, Charles M., Valley Center, Kansas
 MacConomy, Edward N., Jr., St. Mary's City
 MacCreary, Donald, Newark, Del.
 Marshall, Housden L., Arlington, Va.
 Marth, Paul C., Takoma Park
 Matheson, Harry, Washington, D. C.
 Matson, Ruby I., Takoma Park
 Mattingly, Robert L., Washington, D. C.
 McCollum, Frank L., Jonesport, Maine
 McNally, Edmund H., Washington, D. C.
 Mehring, Arnon L., Jr., Greenbelt
 Miller, Fred L., Mt. Rainier

Miller, Harry A., Washington, D. C.
 Miller, Roman R., Washington, D. C.
 Milliken, Julia W., (Mrs.), Silver Spring
 Moore, Oscar K., Gainesville, Fla.
 Moore, Robert R., Sandy Spring
 Mulholland, Elizabeth A., Baltimore
 Murphy, George L., Rhodesdale
 Nash, Carroll B., College Park
 Nestler, Ralph B., Odenton
 Neustadt, Morris H., Washington, D. C.
 Newman, Edwin S., Washington, D. C.
 Newman, Leonard S., Boonsboro
 Nigels, Wilson W., College Park
 Nolan, Edna P., Mt. Rainier
 Nolte, William A., Washington, D. C.
 Olsen, Marlow W., Cylandes, Iowa
 Olson, Rodney A., Somerville, Mass.
 Opperman, Nancy R., Washington, D. C.
 Ortenzio, Louis F., College Park
 Osborn, James M., Washington, D. C.
 Ost, Walter M., Takoma Park
 Owings, Eva M. R., Baltimore
 Parmele, Leslie P., Washington, D. C.
 Paulhus, Norman G., Willimantic, Conn.
 Perlmutter, Frank, Newark, N. J.
 Peterson, Robert F., Washington, D. C.
 Pfeiffer, Paul E., Annapolis
 Phillips, Griffin L., Beltsville
 Pitsenberger, James R., Rocks
 Poffenberger, Paul R., Hyattsville
 Posey, Walter B., Upper Marlboro
 Potts, B. Sheba, Baltimore
 Pryor, Robert L., College Park
 Pyles, William G., Gaithersburg
 Ramsburg, Helen B., (Mrs.), Beltsville
 Ramsburg, M. M., Beltsville
 Randall, Gussie, Foster Center, R. I.
 Rankin, W. Donald, Baltimore
 Raspet, August, Jeannette, Pa.
 Rauchsvalbe, Otto E., Washington, D. C.
 Reddick, Jeannette L., (Mrs.), Brentwood
 Reich, Elinor G. J., La Plata
 Reidy, Kathryn, Chevy Chase
 Reinhart, Frank W., Takoma Park
 Reinhart, Frederick M., Takoma Park
 Remington, Jesse A., Laurel
 Remsberg, LeRoy K., Middletown
 Reynard, George B., Hiram, Ohio
 Rice, John E., Frederick
 Ripley, Raymond G., Chestertown
 Robertson, Betty H., College Park
 Robertson, Roy, Elkton
 Robey, Louise E., Washington, D. C.
 Robinson, Grace E., Baltimore
 Robinson, Harold B., Washington, D. C.
 Roby, Dorothy V., Riverdale
 Rosin, Anne H., Silver Spring

Ross, Sidney M., Miami, Fla.
 Rubin, Max, Jersey City, N. J.
 Sadle, Alexander, Washington, D. C.
 Schechter, Milton, Brooklyn, N. Y.
 Schlain, David, Philadelphia, Pa.
 Schneer, Henry I., Bardonia, N. Y.
 Schneider, Roy, Silver Spring
 Scholl, Walter, Washington, D. C.
 Schutz, J. Logan, New Orleans, La.
 Schwab, Frank W., Washington, D. C.
 Schweizer, Mark, Riverdale
 Scott, Donald H., Fargo, N. Dak.
 Scott, Edward J., Chicago, Ill.
 Shay, Donald E., Lebanon, Pa.
 Shearer, Kathleen M., (Mrs.), College Park
 Sheff, Joseph A., Annapolis
 Shepherd, Boland B., Orrum, N. C.
 Shutak, Vladimir G., San Francisco, Calif.
 Simpson, Vernon R., Baltimore
 Sisler, Fred D., Washington, D. C.
 Sivigny, Joseph A., Takoma
 Skelton, Bessie K., Hyattsville
 Sklar, Louise, Manhattan, Kans.
 Slavin, Morris, College Park
 Slocum, Glenn G., Silver Spring
 Smith, Leonard, Washington, D. C.
 Smith, Ruth P., (Mrs.), Silver Spring
 Smithson, John R., Annapolis
 Snyder, Roger W., Hagerstown
 Sockrider, Elsie M., Washington, D. C.
 Sokal, Mitchel, Brooklyn, New York
 Sparks, Walter M., McDonogh
 Specht, Alston W., Washington, D. C.
 Speicher, John P., University Park
 Sprague, Norman G., Takoma Park
 Staire, John R., Jr., Westland, Pa.
 Stanton, William A., Hyattsville
 Steiner, Wilmer W., Washington, D. C.
 Stephens, William A., Charlotte Hall
 Stewart, J. Raymond, Street
 Stier, Howard L., West Friendship
 Stimson, Jesse L., Washington, D. C.
 Stoddard, Carl K., Reno, Nev.
 Stoddard, David L., Hyattsville
 Streiff, Anton J., Washington, D. C.
 Struble, John B., Washington, D. C.
 Stull, William D., Madison, N. J.
 Sullivan, William N., Jr., Beltsville
 Sweeney, Thomas R., Washington, D. C.
 Swern, Daniel, Washington, D. C.
 Taylor, John K., Hyattsville
 Teal, Dorcas R., Hyattsville
 Terrell, Harriet L., (Mrs.), Baltimore
 Thomas, Virginia E., Newark, Del.
 Thompson, Claude H., Odenton
 Titt, LaVeta G., (Mrs.), Hyattsville
 Tollefson, Richard C., Selby, S. Dak.
 Tomlinson, Mary V., North East

Trullinger, Virginia, Washington, D. C.
 Turer, Jack, Washington, D. C.
 Tuve, Richard L., Washington, D. C.
 Vanderlip, Robert G., Washington, D. C.
 VanHorn, C. W., Yuma, Ariz.
 VanMetre, Albert R., Pasadena
 Vignau, John, Washington, D. C.
 Volckhausen, Walter R., Greenbelt
 Voris, John B., Dundalk
 Wagner, Earle B., Bel Air
 Wagner, Thomas C. G., Washington, D. C.
 Walker, E. A., Hyattsville
 Walker, Laurence H., Charlotte Hall
 Wallace, David H., Barclay
 Walton, William W., Hyattsville
 Waugh, Elizabeth F., Los Angeles, Calif.
 Waugh, John G., Los Angeles, Calif.
 Welsh, Llewellyn H., Washington, D. C.
 Wesley, Estelle B., Baltimore
 West, Edward H. F., Alexandria, Va.
 Wester, Robert E., Berwyn
 Wheatley, Rosemary R., Hyattsville
 Wheeler, Donald H., Takoma Park

White, Dorothy E., Bedford, Va.
 White, Marian P., Silver Spring
 Whiton, Alfred C., Brentwood
 Willard, Daniel D., Cumberland
 Williams, Charles S., Hyattsville
 Williams, Donald H., Washington, D. C.
 Williams, Edith M., Washington, D. C.
 Williams, Ralph I., College Park
 Willingham, Charles B., Silver Spring
 Wilson, Robert H., Baltimore
 Wingate, P. J., Glen Burnie
 Wintermoyer, John P., Hagerstown
 Wise, Sarah E., Relay
 Wiseman, Herbert G., Washington, D. C.
 Wiser, Vivian D., Branchville
 Wolfe, John K., Washington, D. C.
 Woods, Albert W., College Park
 Wright, Margery W., Clarksburg, W. Va.
 Wynn, Ruth A., Washington, D. C.
 Yeager, S. Anita, Baltimore
 Young, Edmond G., Baltimore
 Young, Raymond M., Moosup, Conn.
 Zimmerman, S. E., Westminster

COLLEGE OF HOME ECONOMICS

Senior Class

Abbott, Kathryn F., District Heights
 Adkins, Kathryn, Salisbury
 Amadon, Virginia, Washington, D. C.
 Aylesworth, Mary Lee, Buckhannon, W. Va.
 Bain, Betty B., Washington, D. C.
 Balderston, Helen G., Coloma
 Beall, Virginia L., Bethesda
 Beals, Jane H., Washington, D. C.
 Bosley, Audrey M., Baltimore
 Byrd, Evelyn W., College Park
 Cain, Harriet G., Felton, Del.
 DeAlba, Doris, Glen Burnie
 Dunnington, Doris M., Chevy Chase
 Gaston, Virginia M., Buckhannon, W. Va.
 George, Mary E., Mt. Rainier
 Gross, Esther B., Sharpsburg
 Harris, Elma E., Washington, D. C.
 Hartig, Jean M., Washington, D. C.
 Hill, Millie L., Silver Spring
 Huff, Dorothy A., Chevy Chase

Iager, Evelyn L., Washington, D. C.
 Jack, Margaret C., Port Deposit
 Kephart, Jane F., Takoma Park
 Lang, Alice H., E. Norwalk, Conn.
 Law, Betty H., Washington, D. C.
 MacDonald, Margaret E., Bethesda
 McCormac, Elizabeth M., Washington, D. C.
 McGinnis, Verneena, Indian Head
 McGinniss, Bell W., Kensington
 Miller, Alma V., Baltimore
 Nalley, Paula S., Washington, D. C.
 Neumann, Eileen C., Freeport, N. Y.
 Nusbaum, Ruth A. N., New Windsor
 Platt, Helen B., Takoma Park
 Skinner, Doris E., Port Republic
 Soper, Ruby E., Washington, D. C.
 Spehmkouch, A. Lucia, Baltimore
 Stevenson, Marguerite S., Takoma Park
 Tucker, B. Louise, Abingdon
 Waldman, Fredericka I., Washington, D. C.
 Wilson, Ethel J., Washington, D. C.

Junior Class

Bernstein, Edith R., Washington, D. C.
 Bohman, Katherine H., Hagerstown
 Bullock, Evelyn A., Baltimore
 Collison, Margaret, Takoma Park
 Conners, Marie A., Hyattsville
 Curry, Tempe H., Bethesda
 Davis, Barbara J., Chevy Chase

Dunlap, Marguerite C., Washington, D. C.
 Fennell, Beatrice M., Chevy Chase
 Fuchs, Sister Mary Ann, Maryknoll, N. Y.
 Hickman, Martha V., Washington, D. C.
 Hussong, Dorothy L., Washington, D. C.
 Kraft, Jane L., Washington, D. C.
 Leighty, L. Lucile, Washington, D. C.

Logan, Mary A., Washington, D. C.
 Maxson, Jane, Cranford, N. J.
 Mullinix, Esther L., Woodbine
 Repp, Florence J., Westernport
 Richards, Bonnie M. Robinette (Mrs.),
 Mt. Rainier
 Richmond, Ruth, Bethesda
 Rounds, Lela Ford (Mrs.), Salisbury

Sachs, Evelyn B., Baltimore
 Samson, Catherine, Takoma Park
 Sheild, Harriet E., Chevy Chase
 Smaltz, Margaret H., Washington, D. C.
 Skinner, Barbara B., Silver Spring
 Wailes, Dorothea A., Baltimore
 Williams, Helen E., Randallstown
 Wood, M. Virginia, Washington, D. C.

Sophomore Class

Abrahams, Henrietta T., East Orange, N. J.
 Anderson, Muriel E., Washington, D. C.
 Bland, Mildred A., Bennings, D. C.
 Bondareff, Helen E., Washington, D. C.
 Boss, Emma L., Washington, D. C.
 Brookens, Lillian E., Hyattsville
 Buckler, Mary F., Aquasco
 Burkins, Alice K., Castleton
 Callander, Mary H., Washington, D. C.
 Coe, Adelaide E., Washington, D. C.
 Cornnell, Norma L., Brentwood
 Cramblitt, Mary Lee R., Cumberland
 Davis, Dorothy M., Washington, D. C.
 Dippel, Marie D., Baltimore
 Dorsey, Margaret F., Baltimore
 Downey, Milbrey A., Williamsport
 Enfield, Marjory L., Forest Hill
 Garonzik, Ruth, Baltimore
 Hedrick, Ruth M., Beckley, W. Va.
 Hess, Marguerite R., Washington, D. C.
 Jones, Bernice, Takoma Park
 Lewis, L. Inez, Lantz
 Lung, Mary E., Smithsburg
 Lyon, Elnora L., Baltimore
 Marshall, Earla B., Hyattsville
 McComas, Lois C., Abingdon

McDowell, S. Mildred, Nottingham, Pa.
 McRae, Gertrude E., Chevy Chase
 Medbery, Dorothy A., Washington, D. C.
 Mike, Emma M., Washington, D. C.
 Miller, Marjorie L., Ft. Monroe, Va.
 Nellis, Dorothy A., Takoma Park
 Owens, Elizabeth W., Linthicum Heights
 Pierce, Patricia M., Washington, D. C.
 Powers, Mary E., Hyattsville
 Rice, Dorothy E., Washington, D. C.
 Rosenbusch, Frances S., Washington, D. C.
 Santamarie, Jeanne M., Rosemont, Pa.
 Schopmeyer, Grace E., Washington, D. C.
 Schuttrumpf, Doris E., Washington, D. C.
 Seiter, Margaret E., Baltimore
 Simons, Barbara E., Washington, D. C.
 Skidmore, Mary A., College Park
 Stevenson, Bernice, Takoma Park
 Tomberlin, Isabelle L., Hyattsville
 Trundle, Catharine M., Frederick
 Upson, E. Clare, Towson
 Vorkoeper, Marcia M., Washington, D. C.
 Watson, E. Nadine, Brandywine
 Wegman, Ruth R., Hamilton Station
 Whitney, Margaret E., Takoma Park
 Zimmerman, Mary E., Catonsville

Freshman Class

Ackerly, Jean T., Hasbrouck Heights, N. J.
 Allen, Marjorie L., Ritchie
 Anderson, Jane P., Bay Ridge
 Beck, Marian L., Washington, D. C.
 Bedell, Helen I., Washington, D. C.
 Brinson, Dorothy M., Brentwood
 Bryan, Helen M., Chevy Chase
 Burner, Betty, Washington, D. C.
 Cafferty, Joyce A., Washington, D. C.
 Carlson, F. Ann, North East
 Chasney, Sonya, Baltimore
 Cissel, Anne E., Sandy Spring
 Conner, Shirley N., Washington, D. C.
 Cramblitt, Maxine T., Cumberland
 Davidson, Mary J., Washington, D. C.
 Dorsey, Alberta R., Crisfield
 Downey, Mary R., Baltimore
 Dunbar, Ruth M., Little Valley, N. Y.
 Ellis, Erin, Washington, D. C.

Erickson, Audrey L., Washington, D. C.
 Eschner, Ann E., Billingsley
 Fisk, Alice K., Washington, D. C.
 Fitzpatrick, Frances E., Indian Spring
 Village
 Fike, Elizabeth L., Richmond, Va.
 Fleming, Elizabeth K., Baltimore
 Fontaine, Elizabeth V., Baltimore
 Fulton, E. Cedella, Bowie
 Funk, M. Elizabeth, Hagerstown
 Gilchrist, Jacqueline Z., Ft. George G.
 Meade
 Gordon, Muriel, Washington, D. C.
 Graves, Mary L., Kensington
 Green, Dorothy S., Hillandale
 Griffith, Mary Ann, Silver Spring
 Gusack, Sue G., Washington, D. C.
 Hais, Margaret J., Washington, D. C.
 Hambleton, Edwina, Chevy Chase

Hargy, Phoebe M., College Park
 Harkey, Mary L., Perry Point
 Haskell, Mary J., Youngstown, N. Y.
 Hastings, Laura F., Kensington
 Holland, Lois H., Silver Spring
 Homes, Evelyn K., Beaver Heights
 Hubel, Shirley C., College Park
 Hughes, Doris, Chevy Chase
 Jenkins, Eleanor E., Stewartstown, Pa.
 Jester, Martha L., Takoma Park
 Jones, Claudia H., Washington, D. C.
 Ladd, Louise B., Chevy Chase
 Lamb, Nellie, Chevy Chase
 Lambertson, Edwina, Fairview, Kansas
 Landbeck, Shirley J., Baltimore
 Likely, Dorothy E., Savage
 Lillie, Margaret A., Washington, D. C.
 Lutzer, Ellen, Floral Park, N. Y.
 Madigan, Helen M., Dunkirk, N. Y.
 Marks, A. Louise, Lansdowne
 Mason, M. Gene, Queen Anne
 McDaniel, Helen L., Jarrettsville
 McFarland, Doris H., Cumberland
 Meng, Caroline T., Washington, D. C.
 Miskelly, Dorothy J., Washington, D. C.
 Mitchell, Lucia M., Washington, D. C.

Part Time

Codier, Ruth G., Takoma Park

Unclassified

Cashin, Sister Mary H., Maryknoll, N. Y.
 Esch, Marion E., Chevy Chase

Moore, Maryan G., Washington, D. C.
 Moore, Selma L., Washington, D. C.
 Mumma, Betsy M., Hagerstown
 Myrick, Betsy A., Silver Spring
 Park, Mary L., Wayne, Pa.
 Perry, Ella M., Hyattsville
 Poulson, Vivien E., Delmar
 Purnell, Jane L., Laurel, Del.
 Rainalter, Martha L., Cumberland
 Remsberg, Carol, Middletown
 Robards, Kathleen S., Washington, D. C.
 Ruoff, Ethel L., Washington, D. C.
 Shaw, Ruth S., Stewartstown, Pa.
 Staley, Elma L., Rhinebeck, N. Y.
 Stevenson, Mary H., Washington, D. C.
 Strachan, Elizabeth J., Washington, D. C.
 Thompson, Ruth L., Cumberland
 Todd, Frances M., Hyattsville
 Tydings, Elizabeth L., Washington, D. C.
 Vaiden, Mary V., Baltimore
 Webb, M. Eloise, Mt. Airy
 Werth, Dorothy, Washington, D. C.
 Westfall, Jean E., Hyattsville
 White, Doris E., Washington, D. C.
 White, H. Geraldine, Washington, D. C.
 Young, Janet, Washington, D. C.

SCHOOL OF LAW

Fourth Year Evening Class

Andrew, Thomas G., Baltimore
 Banks, Talbot W., Baltimore
 Benson, Alvin L., Westminster
 Bowles, Martin C., Baltimore
 Buppert, Doran H., Baltimore
 Cohen, Irvin H., Baltimore
 Dyer, Harry E., Jr., Havre de Grace
 Gentner, Harry A., Glenside, Pa.
 Hopkins, John H., IV, West River
 Jackson, Charles E., Jr., Baltimore
 Jobson, George J., Catonsville
 Joyce, Jerome J., Baltimore

Kirby, Raymond A., Baltimore
 Kolker, Fabian H., Baltimore
 Lassotovitch, Vladimir S., Havre de Grace
 Lubinski, Edmund W., Baltimore
 Macgill, James, Simpsonville
 McKenrick, Stratford E., Baltimore
 Rasin, Alexander P., Jr., Chestertown
 Redmond, James A., Jr., Baltimore
 Sybert, Edward J., Elkridge
 Tiralla, Henry M., Jr., Baltimore
 Topper, Bernard C., Baltimore
 Wilson, Frank K., Jr., Baltimore

Third Year Day Class

Beck, James D., Baltimore
 Blackhurst, James W., Baltimore
 Clark, Leslie J., Lonaconing
 Clarke, George L., Pikesville
 Edmondson, Charles E., Cambridge
 Finan, Thomas B., Jr., Cumberland
 Frailey, Carson G., Emmitsburg

Getty, Gorman E., Jr., Lonaconing
 Goldberg, Harry, Baltimore
 Handy, Francis D., Baltimore
 Jones, Lewis R., Oakland
 Kalis, Samuel D., Baltimore
 Kelly, Charles B., Jr., Baltimore
 Lovell, Marker J., New Windsor

Monroe, Edward G., Baltimore
 Oken, Fred, Baltimore
 Prettyman, Charles W., Rockville
 Ready, Roland C., Mt. Lake Park
 Shaivitz, Phyllis D., Baltimore
 Silberg, Melvin S., Baltimore
 Smith, John H., Cumberland
 Sullivan, John C., Jr., Baltimore

Third Year Evening Class

Bank, Howard M., Baltimore
 Bussey, Eugene, Baltimore
 Care, Harold C., Baltimore
 Ciesielski, Stanley, Baltimore
 Cox, Charles H., Baltimore
 Douglass, Calvin A., Baltimore
 Hedrick, Thomas H., Baltimore
 Herrmann, John O., Baltimore
 Hordes, Sanford, Jersey City, N. J.
 Howell, George E., Baltimore
 Howell, Joseph F., Baltimore

Second Year Day Class

Armstrong, Alexander, Jr., Towson
 Bailey, Warren L., Baltimore
 Benjamin, Louis, Baltimore
 Berry, Thomas N., Cumberland
 Bloodgood, Joseph H., Baltimore
 Bogdanow, Morris, Jersey City, N. J.
 Brennan, John J., Baltimore
 Brockman, Ethel L., Riverdale
 Bruce, Robert M., Cumberland
 Caplan, David, Baltimore
 Connor, John S., Jr., Catonsville
 Farinholt, Leroy W., Jr., Baltimore
 Fey, John T., Cumberland
 Fowler, Charles R., Washington, D. C.
 Heringman, Leo A., Baltimore

Second Year Evening Class

Alter, Irving D., Baltimore
 Atwater, Charles C. W., Chestertown
 Barbour, Robert T., Rock Point
 Barnard, John D., Baltimore
 Bichy, Charles E., Jr., Baltimore
 Brown, A. Freeborn, 3rd, Havre de Grace
 Cory, Ernest N., Jr., College Park
 Dolan, Frank J., Baltimore
 Evans, Matthew S., Severna Park
 Franklin, John M., Oakland
 Glick, Louis, Baltimore
 Glickman, Max, Annapolis
 Gulbransen, William, Baltimore
 Hebb, John S., III, Baltimore
 Hendrickson, Charles J., Halethorpe
 Huff, James K., Jr., Baltimore
 Kelly, Charles E., Forest Hill
 Knight, Ellsworth C., Jr., Baltimore
 Licht, Abraham, Baltimore
 Mahoney, Elmer J., Baltimore

Taylor, Alfred F., Darlington
 Tuerk, Carl E., Baltimore
 Vogel, Albert T., Baltimore
 Wasserman, Jerome, Baltimore
 Welsh, Barnard T., Rockville
 White, George W., Jr., Baltimore
 Williams, Lawrence E., Baltimore

Johnson, Clarence L., Annapolis
 Ottenheimer, Edwin, Baltimore
 Paymer, Leonard, Baltimore
 Rechner, Charles F., Jr., Baltimore
 Robertson, Emma S., Baltimore
 Scrivener, David S., Washington, D. C.
 Thompson, C. Awdry, Baltimore
 Watchorn, Arthur W., Milbury, Mass.
 Yeager, Paul J., Baltimore
 Zimmerman, Richard E., Baltimore

Holmes, Jesse W., Jr., Cumberland
 Jones, Joseph F., Baltimore
 Kaplan, Solomon, Baltimore
 Lankford, Richard E., Baltimore
 Maguire, John N., Pennsgrove, N. J.
 McColgan, James E., Catonsville
 Polack, Samuel J., Hagerstown
 Ricciuti, Hugo A., Baltimore
 Russell, Turner R., Baltimore
 Shiling, Reuben, Baltimore
 Taylor, Beverly C., Jr., Baltimore
 Thomas, Calvert, Baltimore
 Treacy, James J., Oakland
 Virts, Charles C., Frederick
 White, Robert B., Salisbury

Martin, Darwin B., Mountain Lake Park
 Mason, Everett P., Jr., Baltimore
 McClure, Kenneth F., Baltimore
 McComas, Charles H., Bel Air
 McIntyre, Katherine A., Baltimore
 Meidling, George A., Baltimore
 Mohlenrich, William W., Carroll Station
 O'Donnell, William J., Baltimore
 Purrington, Sara G., Baltimore
 Rasin, George B., Jr., Worton
 Rhodes, Fred B., Jr., Baltimore
 Skeen, John H., Jr., Baltimore
 Smith, Marvin H., Federalsburg
 Smith, William A., Baltimore
 Sody, Herman S., Baltimore
 Tillman, David F., Riderwood
 Umbarger, Paul, Bel Air
 Wenchel, John P., II, Washington, D. C.
 Wise, Paul S., Dover, Del.

First Year Day Class

Bast, George C., Baltimore
Bowman, John D., Rockville
Brenner, Richard B., Baltimore
Broadwater, Norman I., Oakland
Clark, Edward T., Jr., Ellicott City
Cole, William H., Towson
Denner, William J., Manchester
Duvall, Charles O., Annapolis
Eyring, William E., Baltimore
Fales, Merton S., Jr., Baltimore
Fox, John B., Baltimore
Ghingher, John J., Jr., Baltimore
Goldman, Robert M., Baltimore
Kempton, William Branson, Baltimore
Kraus, Anthony W., Jr., Baltimore
Lawder, Robert C., Havre de Grace
Laws, Victor H., Parsonsburg
Maginnis, James B., Baltimore

Martin, Richard, Baltimore
Mattingly, Joseph A., Leonardtown
Maulsby, William E. H., Baltimore
McDonough, John G., Baltimore
Monk, Carl, Baltimore
Perdue, Herman E., Parsonsburg
Peters, F. Leroy, Arlington
Raine, John E., Jr., Towson
Rosenberg, Morton P., Providence, R. I.
Russell, Bertram R., Baltimore
Schenker, Samuel, Annapolis
Smith, C. Edgar, Jr., Baltimore
Stein, Martin K., Baltimore
Timanus, Hall E., Baltimore
Waingold, George, Cumberland
Watson, George B., Towson
Wohlstadter, Leonard, New York, N. Y.

First Year Evening Class

Abrahams, John J., Port Deposit
Bishop, John O., Pasadena
Bratton, William W., Elkton
Brumbaugh, Chalmers S., Jr., Baltimore
Close, Albert P., Bel Air
Cohen, Daniel, Baltimore
Cohen, Herbert L., Baltimore
Emory, Thomas J., Baltimore
Fisher, Charles O., Westminster
Fitzpatrick, Cyril D., Baltimore
Frisco, William P., Dundalk
Gehring, Edwin A., Baltimore
George, Harry, Jr., Brunswick
Grady, Joseph H., Baltimore
Grubbs, Harry L., Jr., Baltimore
Hammond, Frank L., Baltimore
Harris, Frances N., Baltimore
Holtzner, Francis J., Fullerton
Illman, Ben, Baltimore
Ivrey, Samuel M., Annapolis
Jung, Martin J., Baltimore
Kahl, Gordon K., Baltimore
Kolker, Marvin D., Baltimore
Kubitz, Erich, Dundalk
Lanahan, William J., Baltimore
Little, William J., Baltimore
Mack, Joseph J., Baltimore

Mahoney, William W., Baltimore
Marshall, Chesley B., Reynolds, Ga.
McCarthy, Charles J. M., Baltimore
McGreevy, Philip A., Baltimore
McIntyre, Eleanor C., Baltimore
McIntyre, Mary M., Baltimore
Miller, Homer L., Hagerstown
Niemoeller, Joseph V., Baltimore
Ortenzi, Anthony H., Baltimore
Owens, John B., Dundalk
Price, Robert S., Catonsville
Reddy, Edward B., Baltimore
Reed, Charles H., Jr., Bel Air
Reynolds, Benjamin H., Ellicott City
Richardson, Vaughn E., Willards
Russell, Archibald L., Baltimore
Saul, Milton H. F., Baltimore
Scarborough, Joseph G., Elkton
Siegel, Benjamin A., Baltimore
Skeen, William A., Baltimore
Smith, Benton P., Baltimore
Smith, R. Clyde, Baltimore
Snow, Robert C., Washington, D. C.
Suls, Harry, Baltimore
Whaley, Mary H., Baltimore
Wilson, Meredith R., Baltimore
Wright, William A. S., Denton

Unclassified Evening

Coonan, Margaret E., Baltimore
Plant, Albin J., Baltimore
Posner, Louis, Baltimore

Saks, Jay B., Baltimore
Toula, Jaroslav J., Baltimore

Unclassified Day

Ayre, Josephine, Washington, D. C.
Everhart, Nannie M., Frederick
Hartman, Carl S., Pikesville
Long, Eloise G., Salisbury

SCHOOL OF MEDICINE

Senior Class

Baylus, Herman H., Baltimore
Beck, Harry M., Baltimore
Berman, Edgar F., Baltimore
Bernstein, Aaron, Baltimore
Bernstein, Albion O., New York, N. Y.
Bess, Elizabeth G., Keyser, W. Va.
Bloom, Max R., Pittsburgh, Pa.
Brezinski, Edward J., Perth Amboy, N. J.
Briele, Henry A., Baltimore
Brodsky, Bernard, Brooklyn, N. Y.
Cannon, Lawrence S., Salt Lake City, Utah
Cianos, James N., Baltimore
Coffman, Robert T., Keyser, W. Va.
Cohen, Frank S., Baltimore
Corbitt, Richard W., Parkersburg, W. Va.
Cunningham, Raymond M., Baltimore
Filtzer, David L., Baltimore
Freed, Arnold U., Baltimore
Gaver, Leo J., Myersville
Goldberg, Sylvan D., Baltimore
Grier, George S., III, Milford, Del.
Grott, Harold A., Baltimore
Haimowitz, Samuel I., Philadelphia, Pa.
Harris, Charles I., Jr., Rome, Ga.
Harrison, Charles S., Clarksburg, W. Va.
Hartman, Oscar, Baltimore
Hartz, Alvin S., Baltimore
Heimoff, Leonard L., New York, N. Y.
Hooker, Charles B., Takoma Park
Hutchins, Thomas M., Bowens
Isaacson, Benjamin, Baltimore
Jandorf, R. Donald, Baltimore
Jannarone, Lewis H., Belleville, N. J.
Jones, Charles W., Baltimore
Kairys, David, Baltimore
Kammer, William H., Jr., Baltimore
Kappelman, Melvin D., Baltimore
Keister, Philip W., Baltimore
Kerr, James P., Jr., Boyd
Kiely, James A., Cortland, N. Y.
Kinnamon, Howard F., Jr., Easton
Kleiman, Bernard S., Baltimore
Lapinsky, Herbert, Brooklyn, N. Y.
Lavenstein, Arnold F., Baltimore

Layman, William T., Hagerstown
Leitch, William H., Friendship
Magness, Stephen L., Catonsville
Magruder, John R., Baltimore
Marks, Irving L., Baltimore
McClafferty, William J., Jr., West Warwick, R. I.
McLaughlin, Francis J., Baltimore
Meyer, Alvin F., Brooklyn, N. Y.
Miller, Irvin, New York, N. Y.
Miller, William S., Baltimore
Moran, John A., Conway, Mass.
Moricle, Charles H., Reidsville, N. C.
Nuttall, James B., Baltimore
Palmer, David W., Wheeling, W. Va.
Parks, Seigle W., Fairmont, W. Va.
Pijanowski, Walter J., Schenectady, N. Y.
Pillar, Samuel, Baltimore
Polek, Melvin F., Baltimore
Reimann, Dexter L., Baltimore
Rochberg, Samuel, Passaic, N. J.
Ruzicka, Edwin R., Baltimore
Sadove, Max S., Baltimore
Schenthal, Joseph E., Baltimore
Scher, Isadore, Baltimore
Sexton, Thomas S., Sistersville, W. Va.
Sherman, Claude P., Fuquay Springs, N. C.
Siegel, Maurice, Brooklyn, N. Y.
Smoak, Philip L., Tampa, Fla.
Solarz, Sylvan D., Baltimore
Spiegel, Herbert, McKeesport, Pa.
Steger, William J., Wheeling, W. Va.
Stevens, Leland B., Millington
Tartikoff, George, Brooklyn, N. Y.
Thomas, Ramsay B., Towson
Thomas, Wilbur C., North Linthicum
Urlock, John P., Jr., Baltimore
Wallenstein, Leonard, Baltimore
Wanner, Jesse R., Jr., Salisbury
Whitworth, Fuller B., Westernport
Wilder, Milton J., Ferndale
Wilner, Sol, New York, N. Y.
Worsley, Thomas L., Jr., Rocky Mount, N. C.
Zalis, Daniel L., Baltimore

Junior Class

Algire, Glenn H., Baltimore
Andrews, S. Ralph, Jr., Elkton
Arney, William C., Morganton, N. C.
Baier, John C., Mt. Hays
Bailey, Walter L., York, Pa.
Barker, Daniel C., Niantic, Conn.

Biehl, Harold P., Frederick
Bonner, Allan B., Kinston, N. C.
Borden, Jesse N., Baltimore
Brinsfield, Irving C., Vienna
Caplan, Lester H., Baltimore
Chandler, Weldon P., Asheville, N. C.

Beacham, Edmund G., Baltimore
 Clifford, Robert H., Jr., Mountain Lakes, N. J.
 Cole, John T., Warren, Ohio
 Correll, Paul H., Catonsville
 Daniel, Louie S., Oxford, N. C.
 Daue, Edwin O., Jr., Silver Spring
 DeLuca, Joseph, Bristol, R. I.
 Dent, Charles F., Morgantown, W. Va.
 Don Diego, Leonard V., Brooklyn, N. Y.
 Duffy, William C., Perryman
 Dwyer, James R., Renovo, Pa.
 Freeman, James A., Jr., West Union, W. Va.
 Fusting, William H., Baltimore
 Gassaway, William F., Ellicott City
 Gibbs, Robert L., Hickory, N. C.
 Glick, Irving V., Saint Michaels
 Graham, Walter R., Charlotte, N. C.
 Guzman-López, Luis R., San Juan Puerto Rico
 Hecht, Morton, Jr., Baltimore
 Henning, Emil H., Jr., Baltimore
 Heyman, Albert, Baltimore
 Hooton, Elizabeth L., Hyattsville
 Hope, Daniel, Jr., Ellicott City
 Igartua-Cardona, Susana, Aguadilla, Puerto Rico
 Inloes, Benjamin H., Jr., Baltimore
 Jamison, William P., Clarksburg, W. Va.
 Jorgensen, Louis C., Salt Lake City, Utah
 Karns, James R., Baltimore
 Kirchick, Julian G., Brooklyn, N. Y.
 Kohn, Schuyler G., Baltimore
 Krieg, Edward F., Baltimore
 Kurland, Albert A., Baltimore
 Lartz, Robert E., Sharon, Pa.
 Ling, William S. M., New York, N. Y.
 Livingood, William C., Waynesburg, Pa.
 Loker, Frank F., Leonardtown
 Maccubbin, Harry P., Baltimore
 Markline, Simeon V., White Hall
 Martin, Clarence W., Baltimore
 Maryanov, Alfred R., New York, N. Y.
 Mathers, Daniel H., Annapolis
 McCann, Harold F., Clarksburg, W. Va.
 McClung, James E., Richwood, W. Va.

Sophomore Class

Alberti, Aurora F., Brooklyn, N. Y.
 Alexander, Fred, Ridgewood, N. J.
 Barnett, Charles P., Baltimore
 Baxley, Joshua W., III, Ellicott City
 Bowen, Joseph J., Waterbury, Conn.
 Brooks, J. Culpepper, Jr., Chattanooga, Tenn.
 Bundick, William R., Baltimore
 Checket, Pierson M., Baltimore

McClung, William D., Richwood, W. Va.
 McDaniel, George C., Baltimore
 McKinnon, William J., Maxton, N. C.
 Meade, Forest C., Hyattsville
 Miceli, Joseph, Baltimore
 Molz, Edward L., Baltimore
 Murphy, Fred E., Jesup, Ga.
 Muse, William T., Baltimore
 Myers, George R., Hurlock
 O'Hara, James F., Canton, Ohio
 Picó, Guillermo, Hato Rey, Puerto Rico
 Pierpont, Ross Z., Woodlawn
 Pigford, Robert T., Wilmington, N. C.
 Platt, William, Baltimore
 Pollock, Arthur E., Gallitzin, Pa.
 Posner, Leonard, Brooklyn, N. Y.
 Pound, John C., Baltimore
 Rhode, Charles M., Baltimore
 Richter, Conrad L., Baltimore
 Robinson, Raymond V., Baltimore
 Roop, Donald J., New Market
 Rothschild, Carl E., Chefoo, China
 Russell, Thomas E., Jr., Frederick
 Russillo, Philip J., Norwich, Conn.
 Schlesinger, George G., New York, N. Y.
 Sims, Thomas C., Fayetteville, W. Va.
 Sloan, Joseph W., Bayonne, N. J.
 Smith, James B., Glen Burnie
 Smith, Ruby A., Princeton, W. Va.
 Squillante, Orlando J., Warren, R. I.
 Stayton, Howard N., Jr., Wilmington, Del.
 Supik, William J., Baltimore
 Tankin, Louis H., Baltimore
 Thompson, Alexander F., Troy, N. C.
 Tompakov, Samuel, Baltimore
 Townshend, Wilfred H., Jr., Baltimore
 Trevor, William, Baltimore
 Triplett, William C., St. Mary's, W. Va.
 Waite, Merton T., Odenton
 Weeks, William E., Elizabeth City, N. C.
 Wilkins, Jesse L., Pocomoke City
 Williams, Herman J., Reading, Pa.
 Williams, Richard T., Crownsville
 Wilson, Harry T., Jr., Baltimore
 Wolff, William I., New York, N. Y.
 Wright, James R., Raleigh, N. C.
 Zinkin, Solomon B., Lakewood, N. J.

Chiqués, Carlos M., Caguas, Puerto Rico
 Conlen, Richard A., Audubon, N. J.
 Cooper, LeRoy G., Glen Lyon, Pa.
 Crecca, Joseph V., Newark, N. J.
 Croce, Gene A., Providence, R. I.
 Cruikshank, Dwight P., Lumberport, W. Va.
 Culler, John McCleary, Frederick
 de Vincentis, Michael L., Baltimore

Diez-Gutierrez, Emilio, Orocovis, Puerto Rico
 DiPaula, Anthony F., Baltimore
 Esnard, John E., Los Angeles, Calif.
 Evola, Camille M., Flushing, L. I., N. Y.
 Figge, Frank H. J., Baltimore
 Frey, Edward L., Jr., Catonsville
 García-Blanco, José, Ponce, Puerto Rico
 Gelber, Julius, New York, N. Y.
 Goodman, William, Baltimore
 Graziano, Theodore J., Baltimore
 Hedrick, Thomas A., Beckley, W. Va.
 Hershner, Newton W., Jr., Mechanicsburg, Pa.
 Hollander, Asher, Baltimore
 Hunter, James S., Jr., Frostburg
 Jaffe, Vita R., Brooklyn, N. Y.
 Kemp, Norval F., Relay
 Krulevitz, Keaciel K., Baltimore
 Lach, Frank E., Perth Amboy, N. J.
 Leslie, Franklin E., Towson
 Levinson, Lorman L., Baltimore
 Licha, José S., Santurce, Puerto Rico
 Lowe, William C., Stevensville
 Lusby, Thomas F., Prince Frederick
 Mandel, Jacob B., Jersey City, N. J.
 Matthews, Henry S., Rose Hill, N. C.
 Mitchell, William A., Baltimore
 Molinari, José G., Santurce, Puerto Rico
 Morris, Felix R., Bridgeport, Conn.
 Morrison, William H., Baltimore
 Nolan, James J., Catonsville
 Novoa-Caballero, Miguel, Rio Piedras, Puerto Rico
 Ortiz, Idalia O., Santurce, Puerto Rico
 Palmer, Margaret V., Easton

Freshman Class

Adam, Alberto L., San Juan, Puerto Rico
 Ahroon, William A., Baltimore
 Bacharach, David N., Jr., Baltimore
 Barthel, Robert A., Jr., Catonsville
 Bassan, Morton E., Baltimore
 Bennett, Van B., Burnsville, N. C.
 Bird, Joseph G., Baltimore
 Bowen, Francis D. T., Cumberland
 Brodsky, Alexander E., Baltimore
 Byerly, William L., Hartsville, S. C.
 Carey, Richard A., Baltimore
 Carper, John D., Baltimore
 Coffman, Harry F., II, Keyser, W. Va.
 Concilus, Frank, Uniontown, Pa.
 Courtney, Donald L., The Dalles, Oregon
 Cox, Matthew M., Sparrows Point
 Crane, Warren E., Loch Arbour, N. J.
 Davies, Thomas E., Blossburg, Pa.
 Dávila-López, José G., Guaynabo, Puerto Rico

Pasamanick, Benjamin, Brooklyn, N. Y.
 Percy, Thompson, Parkersburg, W. Va.
 Perman, Joshua M., Baltimore
 Pruitt, Charles E., Frederick
 Renna, Francis S., Montclair, N. J.
 Revell, Walter J., Louisville, Ga.
 Richardson, Charles, Jr., Bel Air
 Richmond, Marion B., Chevy Chase
 Richter, Christian F., Jr., Overlea
 Gelber, Julius, New York, N. Y.
 Rosenberg, Jonas S., New York, N. Y.
 Rossberg, Clyde A., Baltimore
 Sasscer, Robert B., Upper Marlboro
 Sawyer, William H., Raleigh, N. C.
 Schwartz, Stanley E., Brooklyn, N. Y.
 Seigman, Edwin L., Jr., Baltimore
 Shannon, Edward P., Jr., Brooklyn, N. Y.
 Sheehan, Joseph C., Baltimore
 Sherrill, Elizabeth B., Sparks
 Spencer, Tracy N., Jr., Concord, N. C.
 Spinnler, Henry R., Butler, N. J.
 Stevens, John S., Bridgeport, Conn.
 Strayer, Webster M., Jr., Baltimore
 Traynor, Francis W., Cumberland
 Trevaskis, Richard W., Cumberland
 Ulrich, George J., Baltimore
 Virusky, Edmund J., Freeland, Pa.
 Walker, James H., Charleston, W. Va.
 Wall, Lester A., Baltimore
 Ward, Charles M., Beckley, W. Va.
 Watkins, Dayton O., Hyattsville
 Wells, John B., Jr., Baltimore
 Wilder, Thomas C., Rochester, Minn.
 Wilson, Edwin F., New York, N. Y.
 Yanagisawa, Kazuo, Berkeley, Calif.
 Young, John D., Jr., Westminster
 Zierler, Kenneth L., Baltimore

Davis, John R., Weston, W. Va.
 Day, Newland E., Baltimore
 Dillinger, Karl A., Weston, W. Va.
 Dougherty, Patrick F., Baltimore
 Eaton, William R., Chester
 Eckles, Eleanor, Bryn Mawr, Pa.
 Fallin, Herbert K., Linthicum Heights
 Ferrer, Olga M., Havana, Cuba
 File, Richard C., Decatur, Ill.
 Franz, John H., Baltimore
 Friedman, Marion, Baltimore
 Fuertes-Garzot, José R., Santurce, Puerto Rico
 Furnari, Joseph C., Johnstown, Pa.
 Gillis, Andrew O., Jr., Baltimore
 Goldsmith, Jewett, Baltimore
 Gramse, Arthur E., Holyoke, Mass.
 Greaves, Lyman B., Woodbridge, Conn.
 Greer, Margaret A., Bel Air
 Gregory, Exie M., Clarksburg, W. Va.

Hamburger, Morton L., Baltimore
 Howard, Samuel C., Glennville, Ga.
 Hubbard, Prevost, Jr., White Plains, N. Y.
 Ingram, Albert L., Jr., Wilmington, Del.
 Irwin, Robert C., Lyndhurst, N. J.
 Jones, Everett D., Westminster
 Kardash, Theodore, Baltimore
 Keeley, Joseph F., Jr., Bridgeport, Conn.
 Kenyon, Harold A., East Falmouth, Mass.
 Kiefer, Robert A., Catonsville
 Klijanowicz, Stanley B., Baltimore
 Knight, Julian H., Greensboro, N. C.
 Kolb, Edwin P., Jr., Holtsville, N. Y.
 Koleshko, Lawrence J., Waterbury, Conn.
 Krepp, Martin W., Jr., Baltimore
 Kroll, John G., Mt. Carmel, Pa.
 Kundahl, Paul C., Germantown
 Langfitt, Frank V., Jr., Clarksburg, W. Va.
 Link, Etta C., Halethorpe
 Longwell, Robert H., Tyrene, Pa.
 Lowitz, Irving R., Baltimore
 Manganiello, Louis O., Waterbury, Conn.
 Mansfield, Thomas B., Westernport
 Marino, Frank S., Middletown, Conn.
 Mazer, Robert, Baltimore
 McCosh, James N., Jr., Ruxton
 McGoogan, Malcolm T., Jr., Fitzgerald, Ga.
 Meli, John J., Charleroi, Pa.
 Miller, Edgar A., Jr., Gettysburg, Pa.
 Moses, Robert A., Baltimore

Medical Art Students

Bialek, Ruth, Baltimore
 Buffington, James E., Catonsville

Krulevitz, Jeanette, Baltimore
 Stringer, John T., Jr., Portsmouth, N. H.

Special Students

Lindeman, Clarence W., Waynesboro, Pa.

McKinney, William W., Houston, Texas

SCHOOL OF NURSING

Graduate Students

Burbage, Katharine E., Salisbury
 Eckenrode, Mary R., Manchester
 Hedrick, Anna Lee, Beckley, W. Va.
 Kroh, Louise E., Kingsville

Stephens, Katherine E., Hertford, N. C.
 Wert, Janice M., Sparrows Point
 Winfield, Irma H., Rohrsersville

Senior Class

Beall, Margaret D., Edgewater
 Bennington, Margaret E., Delta, Pa.
 Clark, Mary S., Jessup, Ga.
 Craven, Nancy Lou, Ramseur, N. C.
 Culler, Margaret O., Frederick
 Danforth, Dorothy M., Baltimore
 Dorsett, Frances E., Indian Head
 Doyle, Thelma C., Lonaconing
 Foster, Lucille E., Beckley, W. Va.
 Foster, Marguerite W., Sparks
 Grammer, Julia J., Waverly, Va.

Hollister, Louise M., Denton
 Lee, Margaret M., Glen Burnie
 Magruder, Catharine B., Baltimore
 Marshall, Lolah H., Baltimore
 Richardson, Virginia B., Waverly, Va.
 Roach, Mary Jane, Hagerstown
 Shaff, Dorothy E., Jefferson
 Travers, Marian E., Nanticoke
 Vandervoort, Susan H., Rantove, Ill.
 Wilson, Margaret F., Baltimore

Mullins, George R., Logan, W. Va.
 Orofino, Caesar F., North Pelham, N. Y.
 Osborne, John C., Baltimore
 Phelan, Patrick C., Jr., Baltimore
 Phillips, Otto C., Baltimore
 Posey, Dale M., Christiana, Pa.
 Ritchings, Edward P., Annapolis
 Román-Artiguez, José R., Santurce, Puerto Rico
 Rosin, John D., Silver Spring
 Rousos, Anthony P., Rochester, N. Y.
 Sadler, Henry H., Jr., Annapolis
 Sadowsky, Wallace H., North East
 Sborofsky, Isadore, Baltimore
 Scott, Joseph W., Live Oak, Fla.
 Sharp, James H., Fairchance, Pa.
 Shea, Lawrence J., Waterbury, Conn.
 Shepherd, Frederick P., Grantwood, N. J.
 Shipley, Edgar R., Baltimore
 Shub, Maurice I., Baltimore
 Shuman, Louis H., Scotland
 Stegmaier, James G., Cumberland
 Summa, Andrew A. J., Syracuse, N. Y.
 Townsend, Francis J., Ocean City
 Vagnina, Livio L., West Englewood, N. J.
 Van Lill, Stephen J., III, Catonsville
 Wallace, Joseph, Jr., Stroudsburg, Pa.
 Williams, Charles H., Owings Mills
 Williamson, Edgar P., Jr., Catonsville
 Zimmerman, Loy M., Baltimore

Intermediate Class

Akers, Evelyn G., Baltimore
 Albright, Pearl E., Granite
 Baer, Martha L., Delta, Pa.
 Broadnax, Clarie P., Rock Hill, S. C.
 Bussard, Mary M., Jefferson
 Conley, Virginia C., Baltimore
 Duffee, Ava V., Norfolk, Va.
 Gardner, Nellie F., Lynchburg, Va.
 Granofsky, Elizabeth C., Baltimore
 Horn, Beatrice C., Point of Rocks
 Joneckis, Mary, Patapasco
 Linthicum, Laura E., Linthicum Heights
 McIntosh, Annie M., Cheraw, S. C.
 Nester, Edna C., Auburn, N. J.
 Parks, Bessie M., Parksley, Va.
 Pember, Laura G., New Bern, N. C.
 Provance, Dorothy J., Greensboro, Pa.

Remke, Pauline I., Elm Grove, W. Va.
 Rothhaupt, Ruth A., Gettysburg, Pa.
 Scharf, Nellie M., Glen Burnie
 Sherwood, Alida, Indianapolis, Ind.
 Simmons, Edna V., Bridgewater, Va.
 Sinnott, Mary L., Baltimore
 Skaggs, Mary A., Hinton, W. Va.
 Smithson, Ethel B., Easton
 Starford, Marianna K., Wendel, W. Va.
 Teeple, Laura E., Jacksonville, Fla.
 Thompson, Ruby E., Hurlock
 Vivod, Marion H., Luke
 Ward, Dorcas V., Baltimore
 Watson, Ada M., Dilliner, Pa.
 Wilkins, Amy Lee, Rock Hall
 Woerner, Ruth C., Baltimore

Junior Class

Edmundson, Margaret B., Mount Olive, N. C.
 Evans, Flora E., Linthicum Heights
 Foster, Mildred E., Bel Air
 Jones, Thelma M., Fries, Va.
 Liles, Judy, Clayton, N. C.
 Long, Sara N., Duncansville, Pa.
 Matthews, Charlotte L., Parksley, Va.
 McCullough, Martha E., Glen Rock, Pa.
 Neel, Catherine L., Mount Airy

Parker, Anna J., Salisbury
 Pritchett, Doris C., Trappe
 Reynolds, Margaret L., Tazewell, Va.
 Sample, Myra M., Elizabeth City, N. C.
 Scholl, Mary C., Wilmington, Del.
 Shaver, Etta M., Westminster
 Skinner, Edna May, Shepherdstown, W. Va.
 Stanley, Frances J., Blue Ridge Summit, Pa.
 Yates, Mary G., Grafton, W. Va.

Probation Class

Almony, Ruth E., White Hall
 Barkdoll, Charlotte S., Hagerstown
 Chesson, Ruth F., Waverly, Va.
 Clarke, Elizabeth S., Washington, D. C.
 Coard, Louise M., Lee Mont, Va.
 Fellers, Mary J., Greeneville, Tenn.
 Finneyfrock, Josephine V., Olney
 Funk, Eleanor A., Boyd
 Hammer, Nell U., Cumberland
 Harcum, Elizabeth A., Salisbury
 Heintz, Phyllis J., Drexel Hill, Pa.
 Higgins, Mary E., Sanford, Fla.
 Hines, Ruth M., Rockville
 Lightbourne, Rebekah S., Burlington, N. C.
 McDonald, Mary A., Baltimore

McMillan, Georgia E., Nathan's Creek, N. C.
 Meitzler, Elizabeth V., Frederick
 Rice, Helen F., Baltimore
 Snyder, Peggy J., Windber, Pa.
 Thornton, Grace M., Assawoman, Va.
 Turner, Edith C., Durham, N. C.
 Vaughan, Eunice I., Darlington
 Vaughan, Texas C., Darlington
 Webb, Mary J., Federalsburg
 Wessells, Dorothy P., Parksley, Va.
 Wilson, Martha C., Kingwood, W. Va.
 Wilson, Philena S., Kingwood, W. Va.
 Wolfe, Elizabeth L., Stephens City, Va.
 Zeller, Carolyn D., Baltimore

SCHOOL OF PHARMACY

Senior Class

Alessi, Alfred H., Baltimore
 Baker, Daniel S., Baltimore
 Binstock, Albert, Baltimore
 Dobropolski, Anthony J., Baltimore
 Dorsch, Joseph U., Baltimore
 Feldman, Jack, Baltimore

Folus, Irving H., Baltimore
 Freedman, Leonard, Baltimore
 Giller, Morris, Baltimore
 Glaser, Louis L., Baltimore
 Golditch, Henry M., Baltimore
 Gruz, Nathan I., Baltimore

Hackett, Angela R., Baltimore
 Heneson, Irving J., Baltimore
 Ichniowski, William M., Baltimore
 Jacobs, Eugene, Baltimore
 Jones, Cyrus F., Baltimore
 Kamanitz, Irvin L., Baltimore
 Lieberman, Lawrence L., Front Royal, Va.
 Mask, Jerome, Baltimore
 Massing, David, Baltimore
 Mendelsohn, Daniel, Arbutus
 Morgenroth, Victor H., Jr., Baltimore
 Mutchnik, Melvin, Baltimore
 Okrasinski, Joseph L., Baltimore
 Parker, Katherine J., Baltimore
 Passen, Lillian, Baltimore

Rosenberg, Morris, Baltimore
 Rosenthal, Alvin, Baltimore
 Rostacher, Harry L., Baltimore
 Sabatino, Louis T., Parkville
 Sachs, Albert, Baltimore
 Sama, Mario A., Baltimore
 Sapperstein, Louis, Baltimore
 Schneyer, Herbert D., Ellicott City
 Shalowitz, Marion, Baltimore
 Silverstein, Bernard, Baltimore
 Snyder, Nathan M., Baltimore
 Stone, Harry, Baltimore
 Wiener, Maurice, Baltimore
 Young, George I., Catonsville

Junior Class

Balassone, Francis S., Thomas W. Va.
 Caplan, Clarice, Baltimore
 Celozzi, Matthew J., Baltimore
 Cohen, Harry I., Baltimore
 Cohen, Samuel, Baltimore
 Feinstein, Bernard S., Baltimore
 Ginsberg, Samuel H., Baltimore
 Goldberg, Albert, Baltimore
 Greenberg, Joseph, Baltimore
 Gumenick, Leonard, Baltimore
 Kahn, Morton, Baltimore
 Kamenetz, Irvin, Baltimore
 Kasik, Frank T., Jr., Raspeburg
 Kline, Sidney, Baltimore
 Kramer, Bernard, Baltimore
 Lassahn, Norbert G., Baltimore
 Lerman, Philip H., Baltimore
 Levin, Leon P., Baltimore

Levy, Irving, Annapolis
 Mayer, Maurice V., Baltimore
 Miller, Edward, Baltimore
 Miller, Manuel, Baltimore
 Poklis, Alphonse, Sparrows Point
 Richman, Philip F., Annapolis
 Rosen, Donald M., Baltimore
 Sachs, Norman R., Baltimore
 Sandler, Solomon, Baltimore
 Schlaen, Mildred, Baltimore
 Shook, Joseph W., Baltimore
 Siegel, Harold, Baltimore
 Silberg, Edgar M., Baltimore
 Simonoff, Robert, Baltimore
 Smith, Daniel E., Catonsville
 Sowbel, Irving, Baltimore
 Spangler, Kenneth G., Baltimore
 Zukerberg, Morris, Baltimore

Sophomore Class

Buchwald, Eva D., Baltimore
 Codd, Francis I., Severna Park
 Cohen, Rose, Baltimore
 DeGele, George O., Baltimore
 DiGristine, Mary R., Baltimore
 Fainberg, Alvin J., Baltimore
 Friedman, Arnold M., Baltimore
 Gassaway, Franklyn D., Clarkdale, Ariz.
 Glaser, Abraham E., Baltimore
 Goodman, Leon, Baltimore
 Hendin, Walter, Baltimore
 Kahn, Reuben, Baltimore
 Kreis, George J., Jr., Baltimore

Krieger, Martin L., Sewickley, Pa.
 Kursvietis, Anthony J., Baltimore
 Lindenbaum, Albert, Baltimore
 Moser, John T., Baltimore
 Noveck, Irvin, Baltimore
 Oken, Jack, Baltimore
 Phillips, Emerson C., Salisbury
 Rosenthal, Bernard, Baltimore
 Rudoff, Oscar, Baltimore
 Sarubin, Milton, Ellicott City
 Steel, Irvin, Baltimore
 Wlodkowski, Edward M., Baltimore
 Zerwitz, Irving F., Baltimore

Freshman Class

Burton, Harold Francis, Monkton
 Clyman, Sidney G., Baltimore
 DeBoy, John M., Halethorpe
 Dziatkowski, Alice R., Baltimore

Eckes, Charles F., Baltimore
 Farley, Charles, Woodlawn
 Feit, Abraham, Baltimore
 Freeman, Emanuel, Baltimore

Friedman, Jerome S., Baltimore
 Getka, Milton S., Baltimore
 Gitomer, Marie, Glen Burnie
 Goldberg, Milton, Baltimore
 Harrison, Alice E., Baltimore
 Heyman, Shirley, Baltimore
 Jankiewicz, Alfred M., Baltimore
 Jernigan, John M., Baltimore
 Klavens, Sidney R., Baltimore
 Knode, Frances L., Baltimore
 Kuryk, Rubin, Baltimore
 Landsman, Melvin, Baltimore
 Levin, Evelyn, Baltimore
 Myers, Morton, Baltimore
 Nollau, Elmer W., Baltimore
 Panamarow, Stephen, Baltimore

Pascual, Juan A., Adjuntas, Puerto Rico
 Pierpont, Edwin L., Woodlawn
 Pippig, Howard A., Catonsville
 Poulase, Guss N., Baltimore
 Pritzker, Sherman, Baltimore
 Ramsey, Wilbur O., Towson
 Reisch, Milton, Baltimore
 Rosenberg, Robert, Baltimore
 Sacks, Sidney, Baltimore
 Simon, Alder, Baltimore
 Smulovitz, Sidney, Baltimore
 Sober, Norman, Baltimore
 Weaver, Warren E., Dundalk
 Weinbach, Eugene C., Baltimore
 Wiener, Herman D., Baltimore
 Wylie, Hamilton B., Jr., Baltimore

Special Students

Dobbs, Edward C., Baltimore
 Gorman, Anne M., Baltimore

Jahn, Elsa F. W., Baltimore
 Muth, Mary J., Baltimore

BALTIMORE THE SUMMER SCHOOL—1938 School of Dentistry

Predental Students

Cadden, John J., Baltimore
 Cierler, Irving J., Baltimore
 Edwards, John J., Dundalk
 Greene, Willard T., Baltimore
 Jacobs, Robert, Baltimore
 Kramer, Mervin, Baltimore
 Landes, Isaac J., Baltimore
 Leiphart, Mahlon P., York, Pa.
 Levy, Herbert S., Baltimore
 Libauer, Robert S., Baltimore
 Moffett, Virginia M., Catonsville

Ouellette, Raymond T., Lawrence, Mass.
 Reilly, James T., Central Aguirre, Puerto Rico
 Robinson, Earl B., Balboa, Canal Zone
 Rothenberg, Joffre M., Baltimore
 Tongue, Raymond K., Baltimore
 Wieland, John T., Baltimore
 Wilkinson, Milton S., North Arlington, N. J.
 Zimmerman, John B., Schaefferstown, Pa.

Dental Students

Aurbach, Frederick, Idabel, Okla.
 Baker, Robert N., Kings Mountain, N. C.
 Barsamian, Samuel, Providence, R. I.
 Betts, Robert L., Newark, N. J.
 Bozzuto, John M., Waterbury, Conn.
 Caldwell, Gilbert L., Baltimore
 Cavallaro, Ralph C., Branford, Conn.
 Griesbach, Hans H., Naugatuck, Conn.
 Hewitt, Earl C., Baltimore

Ivrey, Samuel M., Annapolis
 Kellar, Sidney, Ellenville, N. Y.
 Levine, Louis S., Brooklyn, N. Y.
 McCracken, Jules, Cameron, W. Va.
 Policow, Myron A., Metuchen, N. J.
 Rogers, Tryon E., Waterbury, Conn.
 Rosen, Joseph G., New York, N. Y.
 Sidoti, Vincent F., Winsted, Conn.
 Varipatis, Michael S., Baltimore

School of Medicine

Algire, Glenn H., Baltimore
 Barnett, Charles P., Baltimore
 Cooper, Leroy G., Glen Lyon, Pa.
 de Vincentis, Michael L., Baltimore
 Enten, Harry, Baltimore
 Evola, Camille M., Flushing, L. I., N. Y.

Goodman, William, Baltimore
 Hollander, Asher, Baltimore
 Kemp, Norval F., Relay
 Krulevitz, Keaciel K., Baltimore
 Lartz, Robert E., Sharon, Pa.
 Martinez, Josefina, Ponce, Puerto Rico

Pasamanick, Benjamin, Brooklyn, N. Y.
 Renna, Francis S., Montclair, N. J.
 Richter, Christian F., Jr., Overlea, Md.
 Robinson, Raymond V., Baltimore
 Rossberg, Clyde A., Baltimore
 Sasscer, Robert B., Upper Marlboro
 Sawyer, William H., Raleigh, N. C.
 Schenthal, Joseph E., Baltimore

Schwartz, Stanley E., Brooklyn, N. Y.
 Shannon, Edward P., Jr., Brooklyn, N. Y.
 Sheehan, Joseph C., Baltimore
 Stevens, John S., Bridgeport, Conn.
 Thompson, Robert E., Waubay, S. Dak.
 Virusky, Edmund, Freeland, Pa.
 Wells, John B., Jr., Baltimore
 Wilkins, Jesse L., Pocomoke City

School of Pharmacy

Balassone, Francis S., Thomas, W. Va.
 Celozzi, Matthew J., Baltimore
 Cohen, Samuel, Baltimore
 Councill, Wilford A. H., Jr., Baltimore
 DiGristine, Mary R., Baltimore
 Dunker, Melvin F. W., Baltimore
 Dziatkowski, Alice R., Baltimore
 Friedman, Arnold M., Baltimore
 Glaser, Abraham E., Baltimore
 Golditch, Henry M., Baltimore
 Greenberg, Joseph, Baltimore
 Hackett, Angela R., Baltimore
 Hager, George P., Baltimore
 Heneson, Irving J., Baltimore
 Jarowski, Charles, Baltimore
 Kahn, Morton, Baltimore
 Kahn, Reuben, Baltimore
 Kasik, Frank T., Jr., Raspeburg
 Kreis, George J., Jr., Baltimore

Lassahn, Norbert G., Baltimore
 Levy, Irving, Annapolis
 Martin, William R., Baltimore
 Mayer, Maurice V., Baltimore
 Okrasinski, Joseph L., Baltimore
 Rosen, Donald, Baltimore
 Rosenberg, Morris, Baltimore
 Rosenthal, Bernard, Baltimore
 Rostacher, Harry L., Baltimore
 Rudoff, Oscar, Baltimore
 Sachs, Norman R., Baltimore
 Siegel, Harold, Baltimore
 Silverstein, Bernard, Baltimore
 Smith, Daniel E., Catonsville
 Sowbel, Irving, Baltimore
 Spangler, Kenneth G., Baltimore
 Steel, Irvin, Baltimore
 Sumerford, Wooten T., Athens, Ga.
 Zenitz, Bernard L., Baltimore

COLLEGE PARK

THE SUMMER SCHOOL—1938

*Abbott, Julia E., Frederick
 Abbott, Kathryn K., Bennings, D. C.
 Aburn, Herbert O., Jr., Baltimore
 *Adams, Albert C., Bristol, Tenn.
 Adams, Clifton L., Jr., Silver Spring
 Ahalt, Frances V., Middletown
 Aiello, Catherine C., Hyattsville
 *Aiken, Leonora, Chevy Chase
 Albrittain, Maria L., LaPlata
 Alder, Betty L., Princess Anne
 Alderton, Mary L., Vale Summit
 Aldridge, Agnes L., Mt. Savage
 *Alexander, Taylor R., Hope, Ark.
 *Algire, Glenn H., Baltimore
 *Allison, Herbert M., Hyattsville
 Amadon, Virginia, Washington, D. C.
 Amass, Jack R., Baltimore
 Anderegg, Eunice B., Washington, D. C.
 *Anderson, Dorothy N., Linthicum Heights
 Anderson, Jeannette, Baltimore
 Anderson, Minnie E., Salisbury

*Andrews, Murray L., Hancock
 Angel, Ralph L., Dundalk
 Angle, Mae, Hagerstown
 Appel, Jean W., Washington, D. C.
 Apple, Mary R., Cumberland
 *Appler, Helen I., Washington, D. C.
 Armstrong, Esther P., Gaithersburg
 Ashley, Helen L., Rock Hall
 Astle, Charles C., Rising Sun
 Avis, Clifford L., Ladysmith, Wis.
 Axtell, Harold A., Jr., Takoma Park
 *Ayers, Alice J., Barton
 Ayers, Fay J., Hancock
 Bailey, Catherine V., Fruitland
 Bain, Betty B., Washington, D. C.
 Bair, Thelma E., Hancock
 Baker, Alva S., Catonsville
 *Baker, Kenneth W., Centerville
 Balmer, Charles B., Lyndhurst, N. J.
 Banks, Elizabeth B., Rockville
 Barber, Pauline R., Charlotte Hall

*Graduate students.

*Barcus, J. Walsh, Centerville
 Barker, Marian E., Washington, D. C.
 *Barnhart, C. Paul, Williamsport
 Baron, Herman L., Baltimore
 *Baroniak, Katherine B., St. Mary's City
 *Bartlett, Helen R., Centerville
 Baumgardner, Ralph W., Westminster
 Beach, Dorothy M., Washington, D. C.
 *Beall, Ada M., Libertytown
 *Beal, William R., Hyattstown
 Beamer, Francis X., Washington, D. C.
 Beard, Mary E., Clear Spring
 Beauchamp, Aileen F., Westover
 Beauchamp, Mildred E., Westover
 Beavin, Margaret E., Eastport
 Beck, Margaret, Cumberland
 Beck, Mildred, Cumberland
 Becraft, Mabel, Washington Grove
 Bedsworth, Margaret C., Washington, D. C.
 Beitler, Mary E., Relay
 Belknap, Edward R., Bethesda
 *Bellows, John M., Jr., Maynard, Mass.
 Bennett, Nina T., Sharptown
 Benson, Blanche F., Sandy Spring
 Benson, Ritchie E., Hyattstown
 Benton, Rachel J., Washington, D. C.
 Berlin, Walter I., Baltimore
 *Berman, David Z., Rochester, N. Y.
 Best, Robert H., Washington, D. C.
 *Biehl, Katharine L., Frederick
 *Biggs, Eunice P., Washington, D. C.
 Billings, Marion H., Charlotte Hall
 Birch, Marian, Hyattsville
 Biret, Elsie, Washington, D. C.
 Biskin, Shirley L., Takoma Park
 *Bivens, Douglas M., Hancock
 Blacklock, Josiah A., Towson
 Blackwell, Doris, Washington, D. C.
 Blaisdell, Laura J., Chevy Chase
 Blanck, Katherine V., Washington, D. C.
 Bland, Mildred A., Suitland
 Blattman, Margaret M., Riverdale
 Blentlinger, Charles L., Frederick
 Blentlinger, Nellie E., Frederick
 Blocher, Margaret M., Grantsville
 *Blond, Bernard, Washington, D. C.
 Blum, Alice M., Baltimore
 Blundon, Earl A., Silver Spring
 Bock, Adah F., Washington, D. C.
 Boland, Eleanor S., Gaithersburg
 Bollinger, Gladys G., College Park
 Bollinger, Phyllis G., College Park
 BonDurant, Edgar H., Mt. Rainier
 Bonnotte, Fernand, Gambrills
 Boone, Athol B., Crisfield
 Boone, L. Isabel, Frederick

Borlik, Ralph, Washington, D. C.
 *Boston, William T., Cambridge
 Boswell, Alice A., Brookeville
 Bowen, Louise M., Pikesville
 Bowen, Margaret R., Barstow
 Bowen, C. Vernon, Jr., Centerville
 Bowie, B. Lucile, LaPlata
 Bowie, Oden, Mitchellville
 Bowling, Ellen H., Upper Marlboro
 Bowling, James E., Newport
 Bowling, Thelma P., Faulkner
 Bowling, Virginia P., Wicomico
 Bowman, Carol P., Waterford, Va.
 Boyer, Edward L., Alexandria, Va.
 *Boyles, William A., Hyattsville
 *Brabson, Elizabeth F., Washington, D. C.
 Bradford, William R., Glenn Dale
 Bradley, Eleanor J., Chevy Chase
 *Brain, Earl F., Frostburg
 Bralove, William, Jr., Washington, D. C.
 *Bradenburg, Annie L., Lisbon
 Brandt, Dorothy V., Upper Falls
 Brandt, Frederick B., Washington, D. C.
 *Bratton, William W., Elkton
 *Brechtbill, Edith L., College Park
 Brewer, Naomi L., Annapolis
 Brice, Eleanor V., Annapolis
 Brick, Beulah J., Washington, D. C.
 Bride, Crescent J., Rockville
 Brill, Warren D., North Beach
 Brinckerhoff, John G., Lansdowne, Pa.
 Brinckerhoff, Mary L., Lansdowne, Pa.
 Brinson, John R., Brentwood
 Brittingham, A. Louise, Willards
 Brittingham, Stella H., Salisbury
 Broder, Gertrude, Baltimore
 Brook, Dorothy A., Hancock
 Brookbank, Annie V., Charlotte Hall
 *Brooks, Hattie E., Cambridge
 Brooks, Nicey V., Cambridge
 Brown, C. Eleanor, Annapolis
 *Brown, Donald M., Washington, D. C.
 Brown, Edith H., Silver Spring
 Brown, Elizabeth B., Annapolis
 Brown, Elizabeth W., Laurel
 Brown, Frances L., Woodstock
 *Brown, George C., Asheville, N. C.
 Brown, Kathrine, Centerville
 Brown, Robert S., W. Hazelton, Pa.
 Brucker, Fredric L., Jr., Sparrows Point
 *Bruehl, John T., Centerville
 *Bruehl, Paul E., Centerville
 Brummette, Lillian J., Church Creek
 *Bryan, Samuel, Arlington, Va.
 Bryant, Slater W., Jr., Glen Burnie
 Bucher, Mary E., Hampstead
 Buckel, Ralph L., Bittering

*Graduate students.

Buckler, Mary F., Aquasco
 *Buckler, Milburn A., Prince Frederick
 Buckles, Claire M., Washington, D. C.
 Bull, Carl E., Baltimore
 Bull, Esther V., Monkton
 Bullough, G. VanNess, Baltimore
 Burch, Elizabeth, Charlotte Hall
 *Burgee, Miel D., Ijamsville
 Burges, Sam H., Takoma Park
 Burgess, Blanche H., Laurel
 *Burgess, Lionel, Ellicott City
 *Burhoe, Alice P., Takoma Park
 Burk, Joseph, Woodlawn
 Burns, Robert B., Havre de Grace
 *Burruss, Laura S., Gaithersburg
 *Burslem, William A., Hyattsville
 *Burton, Fred C., Cumberland
 Burton, Jean E., Landover
 *Burton, Jennings L., Takoma Park
 Burton, Julia H., Baltimore
 Bush, Grace, Washington, D. C.
 Bush, Mary L., Washington, D. C.
 *Butler, George N., Riverdale
 Butler, Harry F., Cumberland
 *Butler, Jean E., Riverdale
 Byers, G. Ellsworth, Lonaconing
 Byrd, Evelyn W., College Park
 Byrd, Mary E., Hebron
 Byrd, Nettie G., Crisfield
 *Byrer, Virginia, Baltimore
 Caldwell, Carl D., Washington, D. C.
 Callahan, Ana E., Frederick
 Callahan, Betty H., Glen Burnie
 Callis, Mary E., Accident
 Calomiris, Catherine, Washington, D. C.
 Campbell, Amelia W., Guntown, Miss.
 *Campbell, Marjorie H., Washington, D. C.
 Cantwell, Hammond, Cambridge
 Carr, Daniel J., Jr., Silver Spring
 *Carr, Olive E., Rockville
 Carroll, Mary V., Rockville
 Carrow, Anna M., Cambridge
 Carson, Mary K., Chevy Chase
 Cary, Charles G., Riverdale
 Case, Richard W., Berwyn
 Cashin, Sister Mary Helen, Maryknoll, N. Y.
 Cayton, William I., Monticello, N. Y.
 *Chaconas, Nicholas J., Fairfax, Va.
 Chandler, Edmond T., Westmoreland Hills
 Chaney, Jack W., Annapolis
 Chaney, Robert J., College Park
 Chatham, Elizabeth E., Salisbury
 Checket, Irene R., Atlantic City, N. J.
 Cherrix, Nellie V., Berlin
 *Chesley, H. Elizabeth, Baltimore
 *Cheston, Harvey J., Jr., Washington, D. C.

*Graduate students.

Chew, Virginia, West River
 Chichester, Ethel W., Washington, D. C.
 *Child, Edythe V. D., Linthicum Heights
 Christie, Mary E., Washington, D. C.
 Chronister, Mason, Baltimore
 Cissel, Beatrice S., West Friendship
 Clagett, Jennie D., Upper Marlboro
 Clapp, Alice R. B., Washington, D. C.
 Clark, Constance, Salisbury
 Clark, Edith V., Washington, D. C.
 Clark, Ellen N., Silver Spring
 Clark, Orpha A., Frostburg
 *Clark, Percy E., Upper Marlboro
 Clarke, Edward M., Sabillasville
 *Clarke, Frank E., Westminster
 Clarke, Joseph A., Jessup
 Clatanoff, Elizabeth W., Chestertown
 Clayman, Henry, Baltimore
 *Clayton, Jesse L., Millersville
 *Clevenger, Helen E., Everett, Pa.
 Cline, Carl A., Jr., Monrovia
 Close, Marion B., Frostburg
 *Cobb, Alexander D., Newark, Del.
 *Cockey, Joshua H., Monkton
 Coe, Paul M., Washington, D. C.
 Coffman, Mary A., Keedysville
 Cohen, Milton J., Washington, D. C.
 Cole, Helen N., Hanover
 Cole, William P., Towson
 Coleman, Albert S., Takoma Park, D. C.
 *Colip, Louise R., Riverdale
 Collins, Mary W., Washington, D. C.
 Collison, Margaret, Takoma Park, D. C.
 Combs, Rose M., Drayden
 Comer, Florence R., Hyattsville
 Comer, Helen M., Frostburg
 Compber, Ruth B., Poolesville
 Condon, Frances B., Washington, D. C.
 *Connolly, Anna L., Washington, D. C.
 Connor, Ethel K., Washington, D. C.
 Conrad, Maude E., Williamsport
 Cook, H. Irvin, Hyattsville
 Cook, Laurel D., Bethesda
 Cook, Mildred L., College Park
 Cook, Nellie E., College Park
 Cooney, R. Victor, Bethesda
 Cooper, Sadie, Annapolis
 *Coover, Russell B., Chevy Chase
 Copes, Bessie E., Silver Spring
 Copes, Grace R., Silver Spring
 Coppage, Miriam L., Price
 Corbett, Ruth, Baltimore
 Cordrey, Myra E., Pittsville
 *Corkins, Jane E., Baltimore
 Cornnell, Ellner A., Brentwood
 Cornnell, Norma L., Brentwood
 Coulbourn, Alice M., Crisfield

Covey, Catherine H., Church Hill
 Covington, Julia W., Princess Anne
 Cox, Louis T., Jr., Dundalk
 Craig, Evelyn M., Elk Mills
 Craig, Madie E., Brentwood
 Cramblitt, Mary L. R., Cumberland
 *Cramer, Bessie W., Washington, D. C.
 Crisafull, Joseph, Washington, D. C.
 Cressman, Kathryn L., Boonsboro
 *Crockett, Beatrice W., Silver Spring
 Crockett, Leonard W., Mt. Airy
 Cromer, Alice M., Washington, D. C.
 Cron, Iris V., College Park
 Cronise, A. Katherine, Frederick
 *Crosby, Muriel E., Washington, D. C.
 Crossan, Florence G., Silver Spring
 Crouch, Lillian O., Rock Hall
 Crumb, Mary R., Washington, D. C.
 Crump, Ralph F., Frostburg
 *Cubbage, Nancy C., Hyattsville
 Culler, W. Walter, Jr., Walkersville
 Cunningham, Hilda S., Washington, D. C.
 *Curry, Nettie A., Carthage, Mo.
 Custis, John K., Washington, D. C.
 Dahlgren, Clyde R., Oakland
 Dahlgren, Ruby A., Frostburg
 *Dahn, Eloise, Chevy Chase
 Damuth, Donald R., Baltimore
 Daniel, Leviah W., Frostburg
 Daniels, Edith C., Annapolis
 Darby, Eloise R., Laurel
 Daugherty, Irvin W., Williamsport
 Daughtrey, Helen J., Cumberland
 Davidson, Lida M., Chevy Chase
 Davidson, Oscar M., Baltimore
 *Davis, Alma E., Takoma Park
 Davis, Edith C., Cumberland
 *Davis, Edward F., Arlington, Va.
 Davis, Elanora B., Washington, D. C.
 Davis, W. Bruce, Silver Spring
 *Dawson, Catharine I., Richmond, Va.
 Dawson, Edward M., 4th, Brentwood
 Dawson, Helen M., Edgewater
 *Day, Roger X., Frostburg
 DeAlba, Doris E., Glen Burnie
 Deitz, Alice E., Baltimore
 Delaney, Atlee M., Charleston, W. Va.
 Dempsey, Harry J., Hyattsville
 DePue, Catherine B., Washington, D. C.
 Derr, L. Hubert, Monrovia
 Derrick, Dan M., Washington, D. C.
 DeWitt, George A., Bethesda
 *Dick, Arthur A., Barton
 Dieffenbach, Albert W., Garrett Park
 Dietrich, Clayton A., Baltimore
 Dippel, Francis X., Baltimore
 Dippel, Marie D., Baltimore

*Graduate students.

Diggs, William B., Baltimore
 DiGiulian, Charles A., Bennings, D. C.
 Dillon, Mary C., Washington, D. C.
 Dix, Francis, Washington, D. C.
 *Dixon, Paul J., Conway, N. H.
 Doak, Margaret E., Cumberland
 Dodd, Ocie E., Chevy Chase, D. C.
 Donahay, Katharine, Washington, D. C.
 Donahue, William E., Washington, D. C.
 Donaway, Amelia F., Willards
 *Donnelly, Ralph W., Garrett Park
 Dorsey, Agatha V., Midland
 Dorsey, E. Elizabeth, Sykesville
 Dorsey, E. Virginia, Dares
 Dorsey, M. Grace, Broome's Island
 Downey, Katherine P., Hagerstown
 *Downey, Mylo S., Hyattsville
 Downs, Edna K., Williamsport
 Downs, Naomi R., Williamsport
 Draper, Eva R., Clearspring
 Drechsler, Clotilde C., Westminster
 *Drumm, Edith E., Millersville, Pa.
 Dryden, George E., Stockton
 Dryden, Winnie E., Snow Hill
 DuBrow, Rita L., Englewood, N. J.
 Duckworth, Edna, Cumberland
 Duckworth, Marie, Westernport
 Dudderar, Charles W., Baltimore
 Duff, Edward H., Tall Timbers
 *Dugan, Raymond, Hoopersville
 DuLaney, Elizabeth V., Clarksburg
 Dulin, Blanche S., Washington, D. C.
 Duncan, Dorothy H., Parkton
 *Dunker, M. F. W., Baltimore
 Dunkle, H. Bothwell, Maddox
 Dunwoody, Ruth M., Baltimore
 Dyche, Mildred I., Cumberland
 Dyott, Hazel S., Easton
 Earle, John H., Washington, D. C.
 Earle, Mary I., Washington, D. C.
 *Eckenrode, Charles J., Thurmont
 Edgerton, James F., Washington, D. C.
 *Edgeworth, Clyde B., Towson
 Edwards, John B., Hyattsville
 Edwards, John F., Jr., Washington, D. C.
 Egan, John J., Waterbury, Conn.
 Elgin, Mary, Poolesville
 Ellegood, Georgia G., Delmar, Del.
 Ellery, Rosina C., Nanticoke, Pa.
 Elliott, E. V., Catonsville
 Ellis, Hazel T., Chevy Chase
 *Elmore, Edna E., Washington, D. C.
 Elsey, Lucy P., Washington, D. C.
 Elvin, Kay D., Frostburg
 Enfield, Marjory L., Forest Hill
 Ensor, Barbara E., Sparks
 *Ensor, J. Wheeler, Towson

Epperson, John W., Baltimore
 Erickson, Jeannette A., Annapolis
 Ericson, Charlotte M., Lanham
 Erwood, Florence D., Salisbury
 Etzler, Mary A., Frederick
 *Evans, Arthur B., Jr., Washington, D. C.
 Evans, Frances E., Frostburg
 Evans, Hal K., Bladensburg
 *Evans, Margaret E., Owensboro, Ky.
 Evans, Thomas H., Cambridge
 Evans, William B., Jr., Ewell
 *Everly, Carl H., Oakland
 Ewing, Margaret T., Baltimore
 Eyler, John D., Jr., Baltimore
 *Eyler, Marian G., Cumberland
 Faith, Lawrence S., Hancock
 Falcone, Thelma E., Washington, D. C.
 Farson, Beulah H., Showell
 *Fatkin, William M., Luke
 Faulkner, Catherine, Washington, D. C.
 Faulkner, Mary M., Centerville
 Faust, Bernard B., Washington, D. C.
 *Feiser, Angela M., Prince Frederick
 Fenby, Catherine H., Olney
 Fenster, Sidney J., Baltimore
 Figgs, Ruth, Delmar, Del.
 Filler, Alice, Cumberland
 *Filler, W. Arthur, Baltimore
 Finocchiaro, Catherine I., Branchville
 Fishburne, Benjamin P., Chevy Chase
 *Fisher, John W., Westernport
 Fivecoat, Doris E., Portsmouth, Va.
 Flake, Elizabeth I., Cumberland
 Flanagan, Francis J., Fort Meade
 *Flanagan, Inez E., Walkersville
 Fleetwood, Dorothy A., Centerville
 Fleming, Mary E., Queen Anne
 Flinn, Nannie R., Kensington
 Flint, Anne L., Washington, D. C.
 *Florestano, Herbert J., Annapolis
 Flurer, Gertrude H., Princess Anne
 *Foley, Julia, Rockville
 Footen, Paul L., Barton
 Forsberg, Robert A., Rockville
 Forsyth, Carroll M., Friendsville
 Fost, Edward H., Hancock
 Fox, Hamilton P., Salisbury
 Fox, William W., Salisbury
 Frantz, Florence M., Clear Spring
 Fraser, M. Bissett, Baltimore
 Freeman, L. Louise, Boonsboro
 Freeny, Lelah H., Delmar, Del.
 French, Samuel L., Rumbly
 Fries, Lillian V., Hagerstown
 Frizzell, Eleanor M., Lonaconing
 Frye, Donald H., Laurel
 Fuchs, Sister Mary Ann, Maryknoll, N. Y.

*Graduate students.

Fulgham, Evel W., Washington, D. C.
 Fulks, Mary O., Laytonsville
 *Fuller, Frederick W., Jarrettsville
 Fulmer, Edna M., Frederick
 Furbershaw, Olga S., Washington, D. C.
 Furniss, Thelma A., Princess Anne
 Gaither, Margaret, Bethesda
 Galbreath, Paul M., Street
 Gale, Isabelle L., Hagerstown
 Gale, Mary V., Hagerstown
 *Gammon, Nathan, Jr., Washington, D. C.
 Ganzert, Mary L., Washington, D. C.
 Gardner, George P., Middletown
 Gardner, Wm. L., Jessup
 Garner, Katherine G., Spring Hill
 Garrett, Esther B., Annapolis
 *Gattis, Reid W., Washington, D. C.
 Gauss, Charles E., Washington, D. C.
 Gauss, Lenna O., Washington, D. C.
 Gay, Martha E., Washington, D. C.
 Gehman, J. Frederick, Brentwood
 Geib, Kathryn M., Cordova
 *Geiger, Helen M., Washington, D. C.
 Geoghegan, Sally B., Cambridge
 George, Claire C., Washington, D. C.
 Gettier, Marguerite B., Huntingtown
 Gible, Grace L., Takoma Park
 Gibbs, William E., Hyattsville
 Gibson, Madeline H., Glen Burnie
 Gibson, Rachel F., Glen Burnie
 Gienger, George H., Washington, D. C.
 Gilliss, Mary A. F., Berlin
 Gilliss, Miriam A., Quantico
 *Gisriel, Cornelius E., Elk Ridge
 Gittings, Marion V., Rohrerstown
 Glaze, Francis W., Jr., Hyattsville
 *Glime, Gilbert, Frostburg
 Goldberg, Alvin, Brooklyn, N. Y.
 Goller, Carl, Baltimore
 *Goltry, Valmer J., Litchfield, Conn.
 Goode, Hazel N. M., Brunswick
 Gootee, Mary V., East New Market
 Gordon, Dorothy M., Hyattsville
 *Gordon, Fortuna L., Fayette, Mo.
 Gordy, Eugene M., Snow Hill
 Gough, Katharine L., Laurel
 *Graham, Julian R., Sudlersville
 Green, Mary E., Boonsboro
 *Green, Mary O., Boyds
 *Greene, Dorothea B., Rockville
 Greenwald, Anne R., Baltimore
 Greenwood, Judith K., Washington, D. C.
 *Gregory, Florence I., Washington, D. C.
 *Gregory, Henry C., Cumberland
 Grier, Jack G., Towson
 Griffith, Elizabeth W., Laytonsville
 *Griffith, Francis D., Brandy, Va.

*Grimes, John J., Baltimore
 *Grindle, John E., Piedmont, W. Va.
 *Grober, Samuel, New York, N. Y.
 Grogan, Mariana, Washington, D. C.
 *Gross, Charles R., Stemmers Run
 Gross, Esther B., Sharpsburg
 Groves, Robert A., Jr., Woodlawn
 *Grover, Leslie S., Owings
 *Gruver, Frances I., Prince Frederick
 Gue, Ruth S., Damascus
 Guerrant, William S., Jr., Washington, D. C.
 *Guilford, Charles C., Washington, D. C.
 *Guill, John H., Jr., Takoma Park
 Gunby, Clara, Salisbury
 Gupton, Ewing L., Jr., Berwyn
 Guyton, Homer W., Boonsboro
 *Haas, Frances S., Takoma Park
 Hadaway, Ella J., Rock Hall
 Haddaway, Virginia M., Tilghman
 Haft, Herbert H., Washington, D. C.
 Hall, Annie L., Glenn Dale
 Hall, Lacy, Seat Pleasant
 *Hall, Lois B., Chestertown
 Hall, Marjorie E., Washington, D. C.
 *Hall, Richard W., Chestertown
 *Hall, Ruth B., Hyattsville
 Hambleton, Harry B., Jr., Washington, D. C.
 Hamill, Annetta C., Frostburg
 Hamilton, Elizabeth W., University Park
 Hamilton, Jean G., Hyattsville
 Hamilton, Roscoe F., Houston, Mo.
 *Hand, George E., Washington, D. C.
 *Hardell, Elmer P., Washington, D. C.
 *Hardell, Nellie G., Washington, D. C.
 Hardey, James W., Washington, D. C.
 Hargy, Phoebe M., College Park
 Harkins, Charles E., Annapolis
 Harlan, Edwin F., Riverdale
 Harmon, Elizabeth V., Eastport
 Harmon, Katharyn E., Salisbury
 Harns, Marjorie D., Washington, D. C.
 Harris, Elizabeth M., College Park
 Harris, M. Elizabeth, Greenville, Pa.
 Harris, Mildred S., Washington, D. C.
 Harrison, Florence K., College Park
 Harriss, Mary V., Hyattsville
 Hart, Margaret F., Baltimore
 *Hartenstein, Helena J., New Freedom, Pa.
 Harvey, Lillian L., Oakland
 *Haskin, Louise W., Silver Spring
 *Haslup, Charles A., Linthicum Heights
 Hastings, M. Carolyn, Parsonsburg
 *Haviland, Anna G., Brookeville
 Hawkins, Nannie M., Baltimore

*Graduate students.

Head, Julia E., Hyattsville
 Healy, Roberta F., Annapolis
 Hearne, Ethel G., LaPlata
 Hearne, M. Elizabeth, Pittsville
 Heavener, Mabel, Kensington
 Heider, Edward M., Washington, D. C.
 Heil, George J., Baltimore
 *Heim, John W., Upper Marlboro
 Hein, Charles L., Glen Burnie
 *Heironimus, Clark, Washington, D. C.
 Heitz, Albert W., Washington, D. C.
 Hellstern, Charlotte, Hudson Heights, N. J.
 Helser, Mary E., Hagerstown
 Hemp, Louise P., Washington, D. C.
 *Henderson, Edna C., Richmond, Va.
 Henderson, Mattie C., Salisbury
 Henderson, Mildred K., Gaithersburg
 Hendley, Margaret J., Frostburg
 Hendricks, Dorothy, Cumberland
 Hendrix, Nevins B., Port Deposit
 Henkin, Allen E., Washington, D. C.
 *Henley, Robert C., Elkridge
 Hennick, Donald C., College Park
 Henry, Frances L., Washington, D. C.
 Hepbron, I. Louise, Betterton
 Herwig, Edward H., Baltimore
 Hess, Marguerite R., Washington, D. C.
 Heward, Lillie, Snow Hill
 *Hewitt, Ryland H., Kingston, R. I.
 *Hickman, Mildred M., Crisfield
 Hicks, E. Russell, Hagerstown
 Higgins, Homer S., Vale Summit
 Higgins, Lucy D., Washington, D. C.
 Higgins, Mary L., Cumberland
 Hill, Joseph C., Rock Point
 Hiller, Clara G., Washington Grove
 Hilton, E. Jane, Mt. Airy
 Himes, William D., Seat Pleasant
 Hink, Henry M., Annapolis Junction
 Hirsch, Albert, Frederick
 Hirsh, Harold L., Washington, D. C.
 *Hitchcock, George R., Silver Spring
 *Hitz, C. W., Fortescue, Mo.
 Hodges, Raymond L., St. Inigoes
 Hodges, Virginia D., Broome's Island
 *Hoffmann, Minnie C., St. Paul, Minn.
 Hogan, Margaret E., Brunswick
 Hogan, Ralph M., Jr., Alexandria, Va.
 Holliday, Dorothy L., Hebron
 Hollomon, J. Edward, Catonsville
 Holmes, Ruth H., Hyattsville
 Holt, Nadine R., Washington, D. C.
 Hood, Elizabeth J., Silver Spring
 Hoover, Lawrence G., Takoma Park
 Hopkins, Frances P., Salisbury
 *Hormats, Saul, Baltimore
 *Horn, Harold M., Cumberland

*Horn, John J., Raspeburg
Horn, Robert H., Baltimore
Hough, Dorothy G., Westgate
*House, Bolton M., College Park
*House, James H., Mt. Savage
*Howard, Addie J., Hyattsville
Howard, Dorothy L., Rockville
Howard, Josephine T., Falls Church, Va.
Howard, Ruth M., Washington, D. C.
Hoyle, Anne M., Chestertown
Hubel, Shirley C., College Park
Hudson, Vann D., Dundalk
Huff, Leah M., Cumberland
Huffman, Yale B., Greenbelt
Hughes, David W., Washington, D. C.
Hull, Dorothy E., Easton
Hume, Charlotte M., Adamstown
*Humelsine, Carlisle H., Hagerstown
Hunt, Robert M., Washington, D. C.
Hurley, Robert F., Hyattsville
Hurwitz, Hyman, Annapolis
Hutchison, Frances E., Chevy Chase
Hutchison, Stella B., Queen Anne
Hutson, Paul G., Hagerstown
Hutton, Carroll S., Hillsdale
Hutton, Junius O., Chevy Chase
Hutzell, William E., Washington, D. C.
Hyde, Jennie M., Barton
Hyland, Mary N., Federalsburg
Iager, Helen I., Hyattsville
Israel, Virginia H., Laurel
Ivins, May E., Lansdowne
Jackson, Lorraine V., College Park
James, Jennie P., Mt. Rainier
*Jarowski, Charles, Baltimore
Jarvis, Elizabeth B., Berlin
Jarvis, Helen L., Huntingtown
Jaworski, Melvin J., Baltimore
Jerstad, Rebecca A., Laurel
Jester, Marie H., Church Hill
Jewell, Ivy M., Centerville
Johnson, Alfred L., Cabin John
Johnson, Clifford E., Washington, D. C.
Johnson, Eldred D., Upper Falls
Johnson, Henry C., Washington, D. C.
Johnson, Robert W., Baltimore
Johnson, Thomas J., Lutherville
Johnston, Margaret E., Washington, D. C.
Jones, Doris D., Brunswick
*Jones, Elsie C., Harpers Ferry, W. Va.
*Jones, Joseph M., Salisbury
Jones, Leonore G., Faulkner
Jones, Lois G., Laurel
Jones, Mabel L., Stockton
Jones, Mary E., Loveville
Jones, Mary T., Salisbury
Jones, Monterey, Lothian

*Graduate students.

Jones, Nellie M., Lothian
Jones, Nelson R., Washington, D. C.
*Jones, Omar J., Jr., Faulkner
*Jones, Robert W., Frostburg
Jones, Rosena C. M., Pittsville
Jones, Rose I., College Park
*Joy, Mary E., Leonardtown
Joyce, Charles V., Hyattsville
Joyce, Joseph M., Hyattsville
*Jump, Raymond, St. Michaels
*Kalavski, Paul, Baltimore
Kalb, Merrill B., Baltimore
*Kapiloff, Leonard, Baltimore
Kassel, Victor, Brooklyn, N. Y.
Katz, Leonard R., Brooklyn, N. Y.
*Katz, Mildred R., Baltimore
Kaufman, Gee L., Washington, D. C.
Keagy, Raybern W., Washington, D. C.
Keane, Ruth P., Riverdale
Keirn, Mildred, Hagerstown
Kellam, Dorothy D., Rhodes Point
*Keller, Clarence Z., Princess Anne
Kellermann, Eileen A., Hyattsville
Kemp, Margaret C., College Park
*Kemp, Mary, College Park
*Kemp, Phyllis L., Trappe
Kenney, Katherine J., Frostburg
Kephart, Jane F., Takoma Park
Keppler, Millicent M., Washington, D. C.
Kerby, Olive P., Benning, D. C.
*Kerr, John R., Hagerstown
*Kesler, Katherine E., Silver Spring
Keys, Virginia A., Laurel
Kilby, Wilson W., Conowingo
Killiam, Gertrude, Salisbury
Kimberlin, Nettie, Glenwood
King, Elizabeth D., Davidsonville
King, Laura G., Annapolis Junction
King, M. Frances, Huntingtown
King, Margaret V., Cumberland
King, Olive E., Clinton
Kingdon, Mary R., Rockville
Kinney, Lorenzo F., Jr., Kingston, R. I.
Kirby, James T., Trappe
Kirby, Marion, Takoma Park
Kirkpatrick, Mary A., Cumberland
*Klair, Garner F., Glen Burnie
Klein, Charles F., Baltimore
Kleiner, Josephine G., Berwyn
Kline, Joseph M., Frederick
Klug, Howard J., Washington, D. C.
Knotts, Dorothy E., Templeville
*Knox, Louis P., Jr., Clinton
*Knox, Myra P., Woodbine
Koons, Doris M., Washington, D. C.
Kovitz, Armand, Baltimore
Krabill, Verlin C., Pocomoke City

Krause, Louise E., Towson
*Krausse, Harry W., Baltimore
Krauszer, Peter, Jr., New Brunswick, N. J.
Krepp, Martin W., Jr., Baltimore
*Kuhnle, Mary E., Westernport
Kummer, Stanley T., Baltimore
Kupka, Anna E., Bethesda
Kyle, May T., Washington, D. C.
Ladson, Jack A., Olney
Lain, Dorothy M., Hyattsville
Lakin, Elizabeth H., Cumberland
Lambert, Hildreth S., Baltimore
*Lamberton, Berenice G., Washington, D. C.
*Lane, Ruth B., Washington, D. C.
Lanham, Paul T., Lanham
*Lansdale, Margaret L., Sandy Spring
Lansdale, Richard H., Jr., Sandy Spring
Larkin, Charles A., Springdale, Conn.
Larmore, Lloyd L., Hebron
Latimer, Kathryn, Washington, D. C.
Laughlin, Kathryn E., Cumberland
*Lawall, Willard M., Washington, D. C.
*Lawler, Sydney T., Olney
Lawrence, George E., Hanover, Pa.
Laynor, Grace C., Elkridge
*Leatherman, Margaret N., Myersville
Lederhos, Virginia L., Arnold
Lee, Gin H., Washington, D. C.
Lee, Jennie A., Frostburg
Lee, John P., Bethesda
Lehman, Milton L., Baltimore
LeMat, Lee E., Washington, D. C.
Lemmermann, Henry J., College Park
Leonard, Katherine M., Trappe
Leonard, Norma L., Trappe
Leutner, Elizabeth W., Salisbury
Levin, Sol, Baltimore
Lewis, Kloria S., Myersville
Lewis, Mary F., Cambridge
*Lightfoot, Georgiana C., Takoma Park, D. C.
Lilly, Nora C., Elkridge
Lindsay, Gorton P., Baltimore
Lindsay, Margaret L., Washington, D. C.
Lines, Helen J., Silver Spring
Lippy, Evelyn L., Mt. Airy
Lippy, Margaret M., Manchester
Lipsky, Irving R., Washington, D. C.
*Logsdon, Herbert C., Hagerstown
Long, Esther B., Linthicum
Long, Sara F., Delmar, Del.
Long, Virginia M., Selbyville, Del.
Longest, Katherine A., Baltimore
*Longley, Edward L., Baltimore
Longridge, Mary M., Barton

*Graduate students.

Loud, Marietta, Chestertown
*Lovell, Grace, Brentwood
*Lovell, Phyllis M., Hyattsville
*Lowe, Cletus D., Shepherdstown, W. Va.
Luber, Ruth M., Washington, D. C.
Luster, Julia E., Marion, Ark.
*Lutes, Mildred E., Silver Spring
Lynch, Elizabeth S., Crisfield
Macdonald, Frances F., Washington, D. C.
MacDonald, Margaret E., Bethesda
Mace, Nina D., Cambridge
Machen, Wm. S., Hyattsville
MacLellan, Annie M., Baltimore
MacLeod, Mary F., Washington, D. C.
Madorsky, Irving, Washington, D. C.
Magaha, Dora M., Frederick
Magaha, E. Adeline, Frederick
Magruder, Mary S., Washington, D. C.
Magruder, Ruth T., Washington, D. C.
Mahaney, William H., Towson
Mahrer, Mary E., Wilmington, Del.
Maidens, William A., Washington, D. C.
Malcolm, Evelyn J., Westernport
Mangum, Susie A., Washington, D. C.
Manley, Mary E., Midland
*Mann, Carl M., Hagerstown
Manning, Laura, Silver Spring
*Manspeaker, John W., Severna Park
Martin, A. Grace, Hagerstown
Martin, Grace W., Washington, D. C.
Martin, Naomi G., Emmitsburg
Mason, Amy E. L., Washington, D. C.
*Massey, James B., Hampden-Sydney, Va.
Matlack, Harold E., Greensboro
*Matson, Ruby M., Takoma Park
Matthai, Marjorie R., Baltimore
Matthews, Abigail G., LaPlata
*Maurice, Catharine, Bel Air
Maxwell, Anna L., Washington, D. C.
Mayes, Marian V., Phoenix
Mayhew, Elizabeth A., Hyattsville
McAllister, Lassie, Salisbury
McCall, Mildred L., Washington, D. C.
McCann, R. Harold, Glen Burnie
McCardell, Jean R., Washington, D. C.
McCarriar, Herbert G., Baltimore
McCauley, Eloise C., Bennings, D. C.
McCormac, Elizabeth M., Washington, D. C.
McCoy, Horace L., Chevy Chase
McCrane, Nellie M., Annapolis
McCullough, Ethel M., Friendsville
McCullough, H. Virginia, Cumberland
McCusker, Richard W., Pikesville
*McDermott, Roger D., Litchfield, Conn.
McDevitt, Richard C., Baltimore
McDonald, Francis J., Washington, D. C.

McElrath, Dorothy M., Salisbury
 McFadden, Mae, Port Deposit
 *McFarland, Elizabeth, Cumberland
 McFarlane, Samuel B., Jr., Lonaconing
 McFerran, Helen E., Cumberland
 McGinnis, Verneena, Indianhead
 McGuigan, Hilda C., Halethorpe
 McGuigan, Mary J., Halethorpe
 McGuire, M. Fay, Lonaconing
 McIntosh, Edwin K., Sharptown
 McIntyre, Myrtle E., Cumberland
 McKeever, Antoinette A., Takoma Park
 McKeever, Edith H., Kensington
 *McKnew, Myrtle T., Washington, D. C.
 McLean, Frances D., Washington, D. C.
 McLuckie, Donald, Frostburg
 McMahan, Catherine E., Cambridge
 McManus, William H., Berwyn
 McNamar, Kathryn L., Cumberland
 McQuade, John F., Baltimore
 *Meacham, Frank B., Raleigh, N. C.
 Meade, James G., Port Deposit
 Meakin, J. Leonard, Washington, D. C.
 *Measell, Ira D., Upper Marlboro
 Medinger, John L., Baltimore
 Meese, Florence L., Barton
 Meese, Minnie M., Barton
 Mehl, Charlson I., Washington, D. C.
 Mellichampe, Susanne S., Fair Haven
 Mermelstein, Daniel M., Baltimore
 *Merritt, H. Christine, Washington, D. C.
 Meyer, Elizabeth, Washington, D. C.
 Meyer, Elmer L., Jr., Baltimore
 Meyers, Elizabeth, Lonaconing
 Middleton, Doris V., Ewell, Smith's Island
 *Middleton, Frederic A., Washington, D. C.
 Mike, Emma M., Washington, D. C.
 Miles, Charlotte F., Mathews, Va.
 Mileto, Catherine, Annapolis
 Miltzer, Gustave D., Mt. Rainier
 Miller, Elna M., Takoma Park
 Miller, J. William, Boonsboro
 Miller, Margaret G., Hagerstown
 Miller, Marion E., Easton
 Miller, Ottie E., Brunswick
 Miller, William I., Baltimore
 Milliken, Gladys T., Annapolis
 *Milliken, Julia W., Silver Spring
 Milloff, Bernard, Silver Spring
 Mills, Christene, Washington, D. C.
 Milton, Elizabeth L., Bradbury Heights
 Minnick, Grace E., Washington, D. C.
 Mintz, Milton D., Plainfield, N. J.
 Mitchell, Mary A., Salisbury
 Molyneaux, Jeanne, Georgetown Station,
 D. C.
 Monroe, Mary E., Washington, D. C.

*Graduate students.

*Mooney, Stephen L., Cambridge
 Moore, Evelyn W., Washington, D. C.
 Moore, James M., Washington, D. C.
 *Moore, Margaret, Washington, D. C.
 Moore, Medora M., East New Market
 *Morgan, Esthelene W., Chevy Chase
 Morningstar, Mary A., Barnesville
 Morris, E. Irene, Delmar, Del.
 Morris, Frances B., Chestertown
 *Morris, Jessie M., Aberdeen
 Morris, Rachel K., Selbyville, Del.
 Morris, William V., Hyattsville
 Morton, John, Mt. Airy
 Moser, Marion O., Frederick
 Moss, Margaret B., Annapolis
 Moss, Mary E., Annapolis
 *Moss, Rosa M., Arlington, Va.
 Motyka, Agnes L., Washington, D. C.
 Mudd, H. Virginia, Pomfret
 Mueller, Eugene F., Jr., Washington,
 D. C.
 Muhlenfeld, Louise F., Baltimore
 Mullendore, Louise C., Washington, D. C.
 Mullikin, Alexandria W., Easton
 Mullinix, Esther L., Woodbine
 Mumford, Addie M., Hyattsville
 Murphy, Donald F., Mt. Washington
 Murray, Margaret V., Havre de Grace
 Murray, William F., Big Pool
 Myers, Blanche J., Bethesda
 Myers, Ruby W., Libertytown
 *Myrick, Floyd A., Timonium
 Nachlas, Bernard A., Baltimore
 Nathanson, Jerome L., Baltimore
 Needy, Glendora E., Boonsboro
 Neilson, Robert S., Baltimore
 Nevy, Inez A., Cumberland
 Newman, Marian A., Washington, D. C.
 Nichols, Helen E., Baltimore
 *Nides, Nicholas G., Centerville
 Nigels, Edith C., College Park
 Noon, May R., Maddox
 *Norman, Julia A., Stevensville
 *Norman, Julia T., Annapolis
 *Norris, Abell A., Jr., Rockville
 Nowell, Jessie B., Washington, D. C.
 Nowell, Margaret L., Shady Side
 O'Connell, Daniel T., Washington, D. C.
 Offutt, Harry D., Edgewood Arsenal
 *Olson, Rodney A., Somerville, Mass.
 Orange, Emanuel, Laurel
 Ornett, Pauline H., Easton
 O'Rourke, Anna M., Frostburg
 *Ost, Walter M., Takoma Park
 Padgett, Elsie F., Anacostia, D. C.
 Pappas, George H., Baltimore
 Parker, Helen M., Vale Summit

Parker, Mabel H., Glen Burnie
 Parker, Mary A., Fallston
 Parks, Catherine W., Crisfield
 Parrish, Marie M., Marlboro
 *Partridge, Maria S., Burtonville
 Pasma, Timothy W., Rockville
 *Patterson, Barbara B., Washington, D. C.
 *Paulette, Edward W., Arlington, Va.
 Paupe, Henrietta N., Cumberland
 Payne, Kirby B., Washington, D. C.
 Pearce, Clementine A., National
 Pearson, H. Ralph, St. George's Island
 Peckham, Margaret T., Washington, D. C.
 Peiffer, Lou F., Glen Burnie
 Peiter, Doris S., Washington, D. C.
 Penn, Mary A., Rockville
 Peregoy, Harry A., Manchester
 Peregoy, Inez C., Parkton
 *Peters, Harriet, Cumberland
 Petersen, Olga C., Hyattsville
 Pettit, Ethelyn E., Snow Hill
 Petrie, Kenneth, Bethesda
 Pettit, David R., Washington, D. C.
 Pfund, Howard, Baltimore
 Phelps, Richard N., McDonogh
 Phillips, Clarence W., Princess Anne
 Phillips, Esther V., Silver Spring
 Phillips, Lurah C., Salisbury
 Pinto, Bessie Y., Princess Anne
 Piozet, Nina C., Hyattsville
 Poole, Lewis A., Annapolis
 Porter, Bettie V., Silver Spring
 Porter, Mary C., Mt. Savage
 Posey, Walter B., Upper Marlboro
 Potter, Charlotte P., Bloomington
 *Potts, Ethel V., Childs
 Powell, Elizabeth H., Princess Anne
 Powell, John M., Dorsey
 Preble, Merle R., College Park
 Price, Elizabeth H., Silver Spring
 *Priest, Hazel, Washington, D. C.
 *Pritchard, Orpha-Benita, Cumberland
 Probey, Frances V., Washington, D. C.
 Prostic, Abraham, Baltimore
 Provenza, Dominic V., Catonsville
 *Purcell, Jo Y., Chaptico
 Purdum, Mildred, Hyattsville
 Purdy, Rosalie S., Annapolis
 Purnell, R. Franklin, Berlin
 Purnell, Sarah G., Berlin
 Pyle, Shirley D., College Park
 Pyles, Charlotte E., Frederick
 *Pyles, William G., Gaithersburg
 *Quinn, Edward F., Jr., Washington, D. C.
 *Quinn, Louise F., Washington, D. C.
 Rabinowitz, Alexander, Brooklyn, N. Y.

*Graduate students.

Randall, Joseph H., Boyds
 Randall, Roland E., Baltimore
 *Rankin, W. Donald, Baltimore
 Raphael, E. Victor, Cumberland
 *Rasin, Harry R., Millington
 Rausch, Charles A., Baltimore
 Rawley, Weldon N., Hyattsville
 Rawling, Frances L., Luke
 Rawls, Estelle H., Kensington
 Reardon, Corinne T., Alexandria, Va.
 Reckner, Jack V., Severna Park
 *Reddick, Jeannette L., Walkersville
 *Reed, Edward D., Alexandria, Va.
 Reed, Marie L., Cambridge
 Reeves, Samuel W., Ft. George G. Meade
 Reiblich, Karl F., Woodlawn
 Reich, Elinor G. J., LaPlata
 *Reid, James L., Catonsville
 *Reidy, Kathryn, Silver Spring
 Reindollar, Helen L., Baltimore
 *Reinhart, Frances J., Takoma Park
 Reitz, Margaret M., Halethorpe
 *Remington, Jesse A., Jr., Laurel
 Remsberg, LeRoy K., Middletown
 Renfro, Thelma C., Washington, D. C.
 Rephorn, Daisy S., Eckhart Mines
 Repp, Mary L. K., Union Bridge
 *Rhodes, Louis K., Jr., Queenstown
 Rich, Bessie A., Baltimore
 *Richardson, Howard E., Perth Amboy,
 N. J.
 Richardson, Lula B., Willards
 Rieg, Mary, Washington, D. C.
 Riffin, Albia E., Princess Anne
 Riggs, Maurice T., Rockville
 Rimmer, William, Hyattsville
 Rinnier, Ethelyn H., Salisbury
 Rittenhouse, Ruth O., Centerville
 Ritter, Rhea, Baltimore
 Rizer, Erma P., Mt. Savage
 Robeck, Alma E., Annapolis
 Roberts, Helen K., Washington, D. C.
 Robertson, Elizabeth, Rockville
 *Robey, Carrie E., Laurel
 Robinson, Florence M., Clearspring
 Rockwood, Marion, Silver Spring
 Rodgers, Lillian C., Elkridge
 Roe, Sara S., Sudlersville
 Rogers, Jerome S., Bethesda
 Rogers, Mary A., Annapolis
 Rogers, John D., Richmond, Va.
 *Rolston, Frank, Washington, D. C.
 Root, Elizabeth A., Bellevue, Pa.
 Rosen, Martin, Northport, N. Y.
 Rosenberg, Robert, Baltimore
 Rosenstein, Louis N., Baltimore
 Ross, Edward W., Jr., Pocomoke City

Ross, Mary L., Cumberland
 Rowe, Dora M., Brentwood
 Rowe, William B., Jr., Washington, D. C.
 *Rowell, Ann H., Hyattsville
 Rubin, Ruth, Washington, D. C.
 Rudy, Helen M., Middletown
 *Russell, Abbie M., Buckhannon, W. Va.
 Russell, Jeannette, Annapolis
 Russell, Naomi D., Chestertown
 Sachs, Frank, Annapolis
 Sadler, Henry H., Jr., Annapolis
 Sadowsky, Ann S., North East
 St. Clair, Betty D., College Park
 Samson, Catherine M., Takoma Park
 Sandlas, Ellen A., Sherwood Forest
 Sandlas, Josephine E., Sherwood Forest
 *Santini, Antoinette, Burtonsville
 Sapp, Emeleen, Berwyn
 Saylor, Zella P., Hyattsville
 Schaefer, Edna M., Frederick
 *Schenthal, Joseph E., Baltimore
 Scherer, Charles R., Towson
 *Schick, Theresa C., Bladensburg
 Schlesinger, Arthur, Washington, D. C.
 Schlosser, Emily S., Catonsville
 Schmitt, Edwin M., Chevy Chase
 Schwartz, Norton B., Spring Valley, N. Y.
 Schwarzmann, Ethel M., Washington, D. C.
 Scott, Mary J., Hyattsville
 *Scotton, Hazel C., Easton
 Seifarth, Loretta, Frostburg
 Seligson, David, Washington, D. C.
 Semler, H. Edwin, Hagerstown
 Sensenbaugh, Glenn H., Smithsburg
 Settle, Mary H., Baltimore
 Sewell, Dora E., Queen Anne
 Sexton, Jordan M., Baltimore
 Shackelford, Nellie S., Cambridge
 *Sharitz, Rupert O., Washington, D. C.
 Shaw, Gail L., Chevy Chase
 *Sheff, Joseph, Annapolis
 Sheid, Lillian L., Silver Spring
 Sheild, Harriet E., Chevy Chase
 Shepperd, Anna G., Upper Falls
 Shepperd, Regina B., Upper Falls
 Sherry, Faye F., Washington, D. C.
 Shields, Elizabeth L., Sabillasville
 Shipe, John K., Washington, D. C.
 Shipley, Jessie I., Westminster
 Shmuner, Daniel, Baltimore
 Shoemaker, Goldie G., Bethesda
 *Showe, Lawrence M., Hagerstown
 Shreve, Edward, Baltimore
 Shue, Elise, Hagerstown
 Siebeneichen, Paul O., Washington, D. C.
 Sigafosse, Nellie L., Point of Rocks

*Graduate students.

*Silverman, Frank, Baltimore
 Silvia, Myrtle N., Princess Anne
 Simmons, Elizabeth M., Waldorf
 Simmons, Frances P., Honga
 Simpson, Frances, Washington, D. C.
 *Simpson, Vernon R., Baltimore
 Sims, Olivia K., Rockville
 Sisson, Ruth H., Hyattsville
 Skidmore, James C., Burkittsville
 Skinner, Doris, Port Republic
 *Sklar, Louise, Manhattan, Kan.
 Skotnicki, Frank J., W. Hazleton, Pa.
 Smith, Blair H., Mt. Rainier
 *Smith, Edna L., Wilkes-Barre, Pa.
 Smith, Elizabeth M., Bethesda
 Smith, Francis A., North East
 Smith, Helen K., Big Spring
 Smith, H. Madelynn, Smithsburg
 Smith, Jessie A., Lonaconing
 *Smith, Mary E. M., Frederick
 Smith, Mary L., Frederick
 Smith, Miriam O., Bethesda
 Smith, Nell D., Cumberland
 Smith, Rose H., Washington, D. C.
 Smith, Ruth E., Frederick
 *Smith, Ruth P., Silver Spring
 Smith, Warrington G., Phoenix
 Smoot, Mildred D., Kensington
 *Snoddy, Margaret L., Lanham
 Snook, Kathryn A., Frederick
 Snow, Claudia, Chevy Chase
 *Snyder, Ethel, Laurel
 Snyder, Jacqueline M.,
 New Smyrna Beach, Fla.
 *Sockrider, Elsie M., Washington, D. C.
 *Sokal, Mitchel, Brooklyn, N. Y.
 Soper, Jessie G., Piscataway
 Soper, Ruby E., Washington, D. C.
 Souder, Letty, Gaithersburg
 Speake, Mary M., Luray, Va.
 Speare, Almus R., Jr., Rockville
 *Speicher, John P., Accident
 Speicher, Nelle I., Accident
 *Speir, Hugh B., Westminster
 *Sperow, Wilson P., Hagerstown
 *Spicknall, Florence L., Hyattsville
 Springer, Earl V., Hagerstown
 Springer, Pauline, Westernport
 Staggers, Delores, Laurel
 Staire, John R., College Park
 Staley, Adeline E., Washington, D. C.
 Stanley, Anna J., Silver Spring
 Stanley, Gertrude W., Mt. Airy
 *Startt, Walter S., Chestertown
 Statler, Helen B., Friendsville
 *Steigner, Elmer P., Silver Spring
 Steinbach, Morton, Baltimore

Steinberger, Janet I., Baltimore
 Stephenson, Douglas R., Washington, D. C.
 Sterbak, Eleanor B., Fallston
 Stericker, Mary C., Swarthmore, Pa.
 Stern, Harry W., Washington, D. C.
 Stevens, Margaret, Paris
 Stevens, Margaret T., Sudlersville
 Stewart, Alice, Frostburg
 Stewart, Carl H., Jr., Baltimore
 *Stewart, Laura C., Arlington, Va.
 Stick, Rebecca R., Hampstead
 Stiegele, Lucy A., Ballston Spa, N. Y.
 Stillings, Charles A., Baltimore
 Stinchcomb, Grace D., Annapolis
 Stitely, Helen E., Union Bridge
 *Stoddard, C. Kerby, Reno, Nev.
 Stoker, Lottie S., Cambridge
 *Stone, Marguerite M., Takoma Park
 Stoops, Margaret F., Chestertown
 *Storrs, Dorothy H., Linthicum Heights
 Stouffer, Hazel I., Boonsboro
 Straser, Minnie E., Hyattsville
 *Strauss, Samuel, Washington, D. C.
 *Strite, John H., Clearspring
 Struckman, Hannah M., Allamong,
 Cumberland
 Stup, Margaret R., Frederick
 Sturgis, Edna D., Delmar
 Sullivan, Evelyn L., Hyattsville
 Sullivan, Mabel C., Annapolis
 *Sumerford, W. T., Athens, Ga.
 *Sunday, Angeline M., Frederick
 Sunderland, Thomas W., Seat Pleasant
 *Sutton, Carrie O., Washington, D. C.
 Sutton, Helen S., Chestertown
 Swain, Reese T., Washington, D. C.
 Swanton, Margaret C., Washington, D. C.
 Swauger, Velora V., Jennings
 Tarbett, Clara M., Takoma Park
 Tarbutton, Ethel A., Easton
 Tauber, Mary E., Catlettsburg, Ky.
 Taylor, Frances O., Chestertown
 Taylor, Gladys V., Hagerstown
 Taylor, Lizzie M., Hebron
 *Taylor, Myra C., Frostburg
 Taylor, Norma, Niagara Falls, N. Y.
 *Teal, Dorcas R., Hyattsville
 Teal, Lois, Hyattsville
 Terl, Armand, Baltimore
 Teter, Lillian, Cumberland
 Teter, Naomi R., Cumberland
 Teunis, Audrey, Upper Marlboro
 *Thomas, Catherine B., Takoma Park
 Thomas, Frederick H., Washington, D. C.
 Thomas, George E., Washington, D. C.
 Thomas, Margaret S., Boonsboro
 Thomas, Nellie G., Oldtown

*Graduate students.

*Thompson, Eloise S., Crewe, Va.
 Thompson, Opal S., Landover
 *Thompson, Robert E., Waubay, S. D.
 Thompson, Susan C., Hollywood
 Thrasher, Margaret D., Jefferson
 *Thurston, Ruby B., Guinea, Va.
 Tiller, Richard E., Washington, D. C.
 Timke, Helen A., Washington, D. C.
 Todd, Bradye R., Wingate
 *Todd, Wilton R., Wingate
 Tolker, Ethel B., Silver Spring
 Tompkins, Margaret H., Rockville
 Tool, Arthur Q., Jr., Takoma Park
 Toole, Charles J., Washington, D. C.
 Towner, Ethel L., Washington, D. C.
 Townsend, Lawrence R., Parkville
 Townshend, Ruth K., Mitchellville
 Trader, Mary F., Kensington
 Trainor, Gertrude C., Silver Spring
 Trammell, Edith E., Washington, D. C.
 Treackle, Virginia E., Street
 Tregellis, John S., Baltimore
 Truitt, Nellie E., Pittsville
 Truman, Zelma M., College Park
 *Trundle, David, Ashton
 Trundle, Ruth M., Washington, D. C.
 Tucker, Ella M., Davidsonville
 *Turner, Agnes L. G., Hyattsville
 Turner, Dorothy H., Prince
 Turner, Edythe M., Rockville
 Tuttle, Samuel D., Baltimore
 Twilley, William E., Mardela
 Tydings, Elsie B., Glen Burnie
 Tyler, Helen C., Rockville
 Upton, Emma H., Dickerson
 Urner, Donald M., Washington, D. C.
 Valle, Joseph, Baltimore
 Valle, Philip J., Baltimore
 *VanMetre, Albert R., Pasadena
 Vansant, Lillian H., Catonsville
 Vaughan, Eleanor J., Washington, D. C.
 *Vincent, Robert L., Seaford, Del.
 Vocke, Mary M., Cumberland
 Waddey, Mary, Princess Anne
 Wade, Courtney J., Boyds
 Wade, John P., Jr., Washington, D. C.
 Waesche, Harry L., Chevy Chase
 *Wagner, Thomas C. G., Washington, D. C.
 Waite, Malden D., Odenton
 Wallace, John A., Bethesda
 Wallace, Mary C., Barclay
 Waller, John R., Hebron
 Waller, Julia L., Salisbury
 Walls, Edwin C., Centerville
 *Walter, Joseph E., Cambridge
 *Waltz, George F., Washington, D. C.
 Ward, George B., Washington, D. C.

Ward, Sarah J., Rockville
 Ward, Stevenson A., Baltimore
 Warehime, Vallie B., Manchester
 Warfield, Mary D., College Park
 Waring, Elizabeth A., Annapolis
 Warner, Grenfell, Washington, D. C.
 Warner, Robert E., Baltimore
 Warrenfeltz, Ruth P., Funkstown
 Waskey, Pauline D., Laurel
 Waters, Mary E., Odenton
 Waters, Robert W., Princess Anne
 Watkins, Charles B., Cooksville
 *Watkins, Robert S., Jessup
 Watson, Betty J., Forest Glen
 Webb, Margaret O., Hyattsville
 Webb, Mary J., Federalsburg
 Wehr, Everett T., Malverne, N. Y.
 *Weinberg, Doris A., Houston, Texas
 *Weis, Theodore G., Takoma Park
 Weiss, Stanley J., Baltimore
 Weld, Ruth, Sandy Spring
 Weller, Clara B., Washington, D. C.
 Weller, Mary E., Hagerstown
 West, Dorothy H., Sligo Park
 West, Edward H. F., Alexandria, Va.
 West, Margery H., Washington, D. C.
 West, William V., Chevy Chase
 *Westberg, Leila A., Takoma Park
 Westerblad, Ruth E., Darlington
 Wette, Mary A. M., Baltimore
 Wheatley, Helen W., Rhodesdale
 Wheedleton, Lillie A., Seaford, Del.
 Wheeler, Naomi B., Rockville
 *Whippen, Norman F., Claremont, N. H.
 Whipple, Stanley R., Baltimore
 *White, Dorothy E., Bedford, Va.
 White, Kenneth S., College Park
 White, Martha M., Salisbury
 White, Mary D., Poolesville
 White, Ruth O., Mt. Rainier
 Whiteman, Elnora, Komatke, Ariz.
 Whiteman, Paul D., Komatke, Ariz.
 Whitman, Julian R., Wellesley Hills, Mass.
 *Whittaker, Rowena, Washington, D. C.
 Wickman, Helen E., Shady Side
 Widmyer, Earl G., Hagerstown
 Wilder, Mary H., Laurel
 Wilkinson, Helen V., Silver Spring
 Willey, Marjorie R., Lansdowne
 Willhide, Elsa H., Baltimore
 Williams, Beatrice A., Marion
 *Williams, Edith M., Washington, D. C.
 Williams, Laurence L., Baltimore
 *Williams, Loris E., Takoma Park
 Williams, Lucille, Washington, D. C.

*Graduate students.

Williams, Margaret G., Baltimore
 *Williams, Ralph I., College Park
 Williford, Carrie F., Annapolis
 Willingham, Patricia M., Hyattsville
 Willis, Blanche M., Delmar
 Wilson, Elinor G., Denton
 Wilson, E. Jane, Washington, D. C.
 Wilson, Ruth, Washington, D. C.
 *Wilson, Walter S., Bel Air
 Wimbrow, Mabel R., Willards
 Windsor, Mary S., Venton
 Wine, Hilda K., Washington, D. C.
 *Wingate, Phillip J., Wingate
 Wink, Treva B., Manchester
 Winter, J. Edw., Midlothian
 Wisner, Jackson W., Rockville
 *Wolfe, Kathleen, Frostburg
 *Womac, Katye E., Silver Spring
 Wonn, Virginia G., Hampstead
 Wood, Helen L., Washington, D. C.
 Wood, J. Arthur, Easton
 Wood, M. Virginia, Washington, D. C.
 Woodward, Emily C., Annapolis
 Woodwell, Lawrence A., Kensington
 Woolfolk, Lillian C., Washington, D. C.
 Wootton, Helen C., Salisbury
 Workman, Mary E., Frostburg
 Wright, Helen J., Perryville
 Wright, Nellie H., Washington, D. C.
 Wright, Robert K., Knoxville
 Wyvill, Ruth M., Washington, D. C.
 *Yarnall, William D., Washington, D. C.
 Yates, Margaret J., Barton
 Yeager, Philip B., Silver Spring
 Yoder, Elizabeth M., Long Green
 Yoder, Merle, Towson
 Young, Alice I., Silver Spring
 Young, Charles M., Washington, D. C.
 *Young, Dorothy O., Bethesda
 Young, Elsa V., Prince Frederick
 *Young, Gladys H., Silver Spring
 Young, Herbert S., Washington, D. C.
 Zacharias, Eloise, Annapolis
 Zaino, Rocco M., Westbury, L. I., N. Y.
 *Zenitz, Bernard L., Baltimore
 Zentmyer, Catherine A., Hagerstown
 Ziegler, Helene M., Halethorpe
 Zimmerman, Marian A., Washington, D. C.
 Zimmerman, Rachel, Eckhart Mines
 Zimmerman, Robert E., Catonsville
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 Ziobro, Thelma M., Solomons
 Zittel, Blanche A., Centerville

SUMMARY OF STUDENT ENROLLMENT FOR THE ACADEMIC YEAR 1938-1939

Resident Collegiate Courses—Academic Year:

	College Park	Baltimore	Total
College of Agriculture.....	320	.....	320
College of Arts and Sciences.....	950	.....	950
College of Commerce.....	302	42	344
School of Dentistry.....	.....	281	281
College of Education.....	423	257	680
College of Engineering.....	475	.....	475
Graduate School	380	67	447
College of Home Economics.....	215	.....	215
School of Law.....	.....	245	245
School of Medicine.....	.....	377	377
School of Nursing.....	.....	108	108
School of Pharmacy.....	.....	147	147
Total	3,065	1,524	4,589
Summer School, 1938.....	1,389	103	1,492
Grand Total	4,454	1,627	6,081
Duplications	—430	—93	—582
Total Less Duplications.....	4,024	1,534	5,499
Vocational Teacher Training, Washington, D. C.....	.....	.....	54
Mining Courses, Western Maryland.....	.....	.....	239
Short Courses and Conferences as shown below.....	.....	.....	3,345
Grand Total, All Courses, Baltimore and College Park, less duplications .....	.....	.....	9,137

Short Courses and Conferences:

Greenkeepers' School.....	65
Highway Engineering Short Course.....	121
Nurserymen's Short Course.....	50
Florists' Short Course.....	156
Garden School.....	263
Canning Crops Conference.....	192
Rural Women.....	708
Educational Advisers, CCC.....	92
Boys' and Girls' Club Week.....	604
Traffic Officers.....	31
Fertilizer Salesmen.....	139
Tree Wardens.....	50
Volunteer Firemen.....	154
Sanitary Engineers.....	56
Poultry Products Marketing School.....	105
Poultry Breeding and Improvement School.....	367
Canning Technicians.....	15
P. T. A. Conference.....	137
Ministers' Conference.....	40
Total Short Courses.....	3,345

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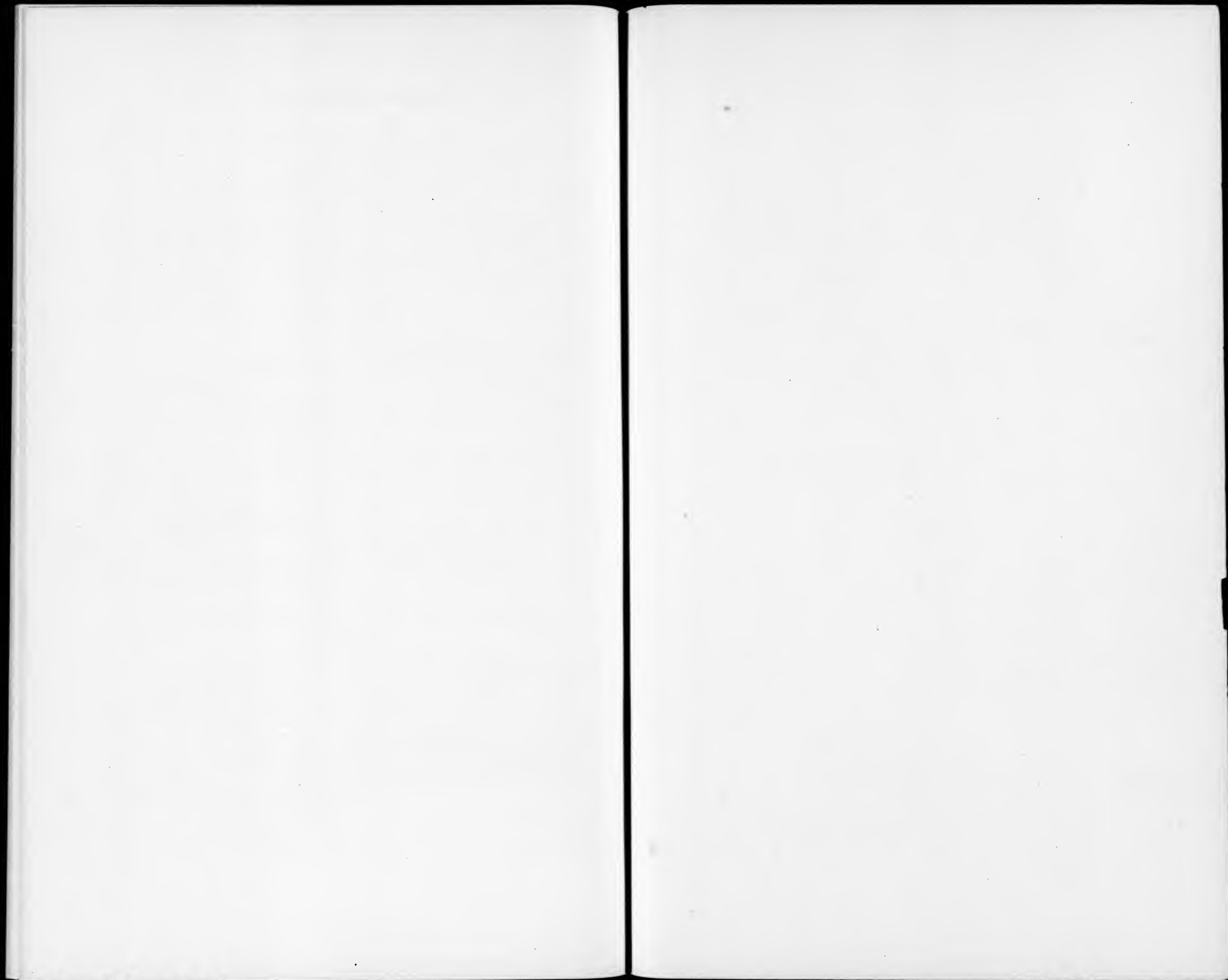
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Any further information desired concerning the University
of Maryland will be furnished upon application to

THE DIRECTOR OF ADMISSIONS,
College Park, Maryland.

